

HAZARD MITIGATION PLAN

FOR

**COVINGTON COUNTY,
ALABAMA**

(2009 UPDATE DRAFT)

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Town of Horn Hill
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Section 1 - Hazard Mitigation Plan Background

Section Contents

- 1.1 Introduction
- 1.2 Authority
- 1.3 Funding
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- 1.5 Purpose

Section	Section Updates
1.x	<ul style="list-style-type: none">• Changes in section numbering
1.1	<ul style="list-style-type: none">• Incorporated former “Section I-A”
1.2	<ul style="list-style-type: none">• Incorporated former “Section I-B”• Added update language
1.3	<ul style="list-style-type: none">• Incorporated former “Section I-C”• Added SEARP&DC in funding assistance
1.4	<ul style="list-style-type: none">• Incorporated former “Section I-D”
1.5	<ul style="list-style-type: none">• Incorporated former “Section I-E”

Covington County Hazard Mitigation Plan

1.1 Introduction

The Covington County Hazard Mitigation Plan is a multi-jurisdictional plan that details several natural hazards that threatens Covington County and its municipalities. This plan fulfills the requirements set forth by the Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 requires counties to formulate a hazard mitigation plan in order to be eligible for mitigation grants made available by the Federal Emergency Management Agency (FEMA).

1.2 Authority

Section 409 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (public Law 93-228, as amended), Title 44 Code of Federal Regulations, as amended by Part 201 of the Disaster Mitigation Act of 2000 requires that all state and local governments develop a hazard mitigation plan as a condition of receiving federal disaster assistance. These plans should be approved by FEMA by November 1, 2004 and updated every five years.

1.3 Funding

Funding for the Covington County Hazard Mitigation Plan was made available through the Hazard Mitigation Grant Program (HMGP), the Covington County Commission, and the Southeast Alabama Regional Planning and Development Commission. The Alabama Emergency Management Agency (AEMA) and Alabama Association of Regional Councils (AARC) entered into an agreement to prepare these plans for many counties in Alabama. The Southeast Alabama Regional Planning and Development Commission (SEARP&DC) and Covington County subsequently entered into an additional agreement. The Covington County Emergency Management Agency and the SEARP&DC facilitated the development of the plan.

1.4 Scope

The Covington County Hazard Mitigation Plan includes all incorporated and unincorporated areas in Covington County. The plan addresses all natural hazards identified by the Federal Emergency Management Agency. All hazards that may affect Covington County and its residents are analyzed. Hazard mitigation strategies are discussed in terms of short term and long term goals. Responsibility for implementation of strategies is discussed and possible funding sources are identified.

1.5 Purpose

The Covington County Hazard Mitigation Plan is an effort to evaluate and identify all natural hazards which may affect Covington County. It presents mitigation strategies that address the hazards identified. This plan is only one of many steps Covington County will take to protect the welfare of residents by achieving a safer environment for its residents.

Section 2 - Covington County Profile

Section Contents

- 2.1 Geology
- 2.2 Transportation
- 2.3 Economy
- 2.4 Utilities
- 2.5 Social and Economic Characteristics

Section	Section Updates
2.x	<ul style="list-style-type: none">Changes in section numbering
2.1	<ul style="list-style-type: none">Incorporated former “Section II-A”
2.2	<ul style="list-style-type: none">Incorporated former “Section II-B”
2.3	<ul style="list-style-type: none">Incorporated former “Section II-C”Changed table to reflect more current employer numbers
2.4	<ul style="list-style-type: none">Incorporated former “Section II-D”Added utility providers that were not listed prior
2.5	<ul style="list-style-type: none">Incorporated former “Section II-E”Utilized recent demographic estimates where possible along with using data from the Economic Development Partnership of Alabama (EDPA)

Covington County Hazard Mitigation Plan

Covington County is located in the heart of south central Alabama. The County has a total land area of 1,034 square miles. Covington County is bordered to the west by Escambia and Conecuh Counties, to the north by Butler and Crenshaw Counties, to the east by Coffee and Geneva Counties, and to the south by the State of Florida (Figure 2.1). Covington County was created on December 17, 1821, being formed from Henry County.

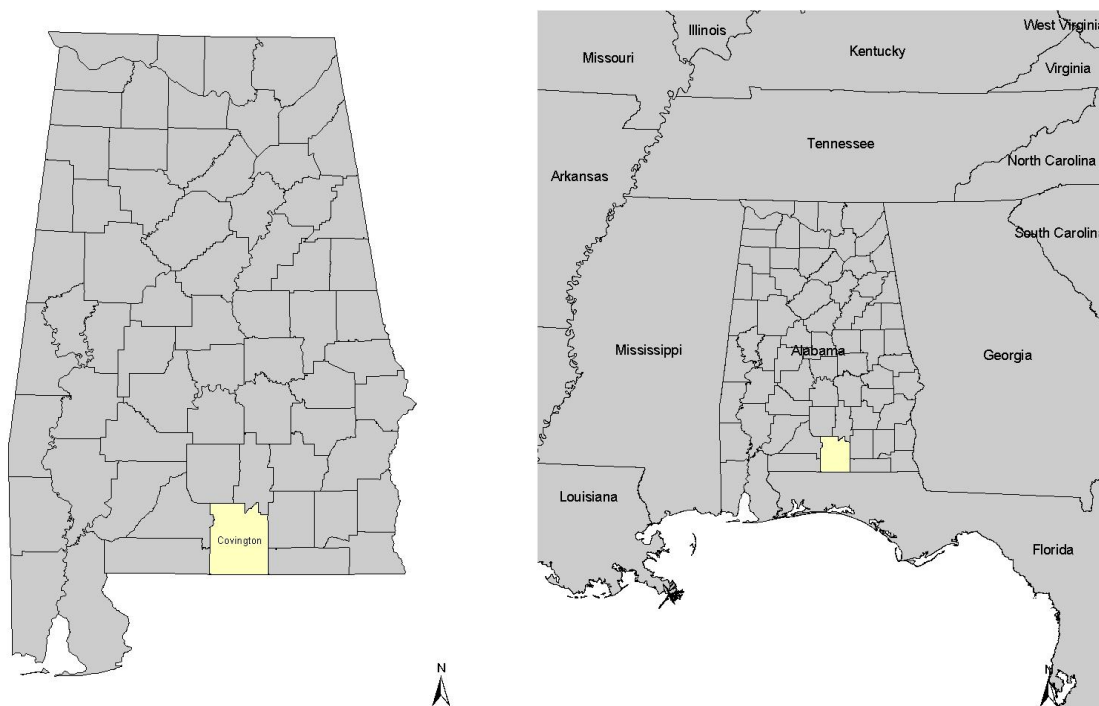


Figure 2.1: Covington County Relative to Alabama and the Southeast United States

2.1 Geology

Covington County lies in the East Gulf Coastal Plain physiographic province. The geologic units that crop out in Covington County range from Eocene to Recent age. The geology is sedimentary in nature, consisting of limestone, sandstone, siltstone, claystone, clay, sand, and gravel (Soil Survey of Covington County, AL).

2.2 Transportation

Roads

Covington County has three designated federal highways, which are listed below.

U.S. Highway 84: U.S. Highway 84 is an east-west route that passes through Opp, Babbie, Sanford, Andalusia, and River Falls. U.S. Highway 84 is designated as a Hurricane Evacuation Route as it intersects with Interstate 65 west of Covington County in Conecuh County.

U.S. Highway 331: U.S. Highway 331 is a north-south route that passes through Florala, Onycha, and Opp. U.S. Highway 331 is designated as a Hurricane Evacuation Route as it intersects with Interstate 65 in Montgomery.

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U.S. Highway 29: U.S. Highway 29 is a northeast-southwest route that passes through Gantt, Heath, Andalusia, and Carolina. U.S. Highway 29 is designated as a Hurricane Evacuation Route as it carries traffic to U.S. Highway 331 north of Covington County in Crenshaw County, where evacuees can then travel on to Interstate 65 in Montgomery.

Covington County also has six state highways.

Alabama Highway 55: Highway 55 is a northwest-southeast route that passes through Red Level, River Falls, Andalusia, Libertyville, Lockhart, and Florala. Highway 55 is designated as a Hurricane Evacuation Route as it intersects with Interstate 65 northwest of Covington County in Butler County.

Alabama Highway 134: Highway 134 is an east-west route that travels from Opp east into Coffee County.

Alabama Highway 52: Highway 52 is a northwest-southeast route that travels from Opp southeast into Coffee County.

Alabama Highway 54: Highway 54 is a southwest-northeast route that travels from Florala northeast into Geneva County.

Alabama Highway 137: Highway 137 is a north-south route that travels from U.S. Highway 29 south through the Conecuh National Forest into Okaloosa County, Florida.

Covington County has an extensive county road system and a system of National Forest roads within the Conecuh National Forest.

Many of these routes are heavily traveled, due to Covington County being a point of travel for vacationers driving to the Florida Panhandle beaches. Also, Covington County has an extensive system of Hurricane Evacuation Routes that not only residents of Covington County use, but also residents and tourists of northwest Florida.

Railroads

Covington County has three Class III (short line) railroads within its jurisdiction.

Alabama and Florida Railroad (AF): The Alabama and Florida runs west-east from Andalusia through Sanford, Babbie, and Opp into Coffee County. Major commodities shipped include agricultural goods, chemicals, pulpwood, and plastics.

Andalusia and Conecuh Railroad (ACRC): The Andalusia and Conecuh runs north-south from Andalusia to Shaw Industries, about three miles north of Andalusia. Its major commodity is plastic resin.

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Three Notch Railroad Company, Inc. (TNHR): The Three Notch Railroad runs southeast-northwest from Andalusia through River Falls and Red Level into Conecuh and Butler Counties. Major commodities include agricultural goods, plastics, and chemicals.

Airports

Covington County has two airports that serve municipal purposes. The **South Alabama Regional Airport** is located within the Town of Sanford. **Floralia Municipal Airport** is located in the City of Florala.

2.3 Economy

Services and manufacturing comprise the two largest employment sectors in Covington County. Table 2.3.1 shows Covington County employers with over 250 employees and the type of product or service produced.

Table 2.3.1 Covington County Largest Employers

Employer	Product	# Employees
Shaw Industries	Carpet Manufacturer	1900
PowerSouth Electric Cooperative	Utility	552
Covington County School System	Education	410
ClientLogic	Call Center	400
Andalusia Regional Hospital	Hospital	270
Mizell Memorial Hospital	Hospital	250

Source: Economic Development Partnership of Alabama

2.4 Utilities

Electricity: Alabama Power, PowerSouth Energy Cooperative (Covington Electric Cooperative, Utilities Board of the City of Andalusia, Utilities Board of the City of Opp, Wiregrass Electric Cooperative)

Water: Utilities Board of the City of Andalusia, Covington County Water Authority, Florala Utilities Board, Town of Gantt, Town of Heath, Town of Lockhart, Utilities Board of the City of Opp, Town of Red Level, Town of River Falls, Town of Sanford

Sewer: Utilities Board of the City of Andalusia, Florala Utilities Board, Town of Lockhart, Utilities Board of the City of Opp

Natural Gas: Southeast Alabama Gas District

Telecommunications: CenturyTel, Gulf Telephone Company (GT Com),

Internet: AlaWeb, CenturyTel, EarthLink

2.5 Social and Economic Characteristics

The 2008 Census estimated population of Covington County was 36,856 people. 15,556 people (42.21%) lives in unincorporated areas of the County, while 21,300 people (57.79%) live within incorporated municipalities. The County's median age is 39.8, which is older than the median age of the State of Alabama (35.8).

In 2000, the percent of the population in Covington County that has finished high school or better (68.4%) is lower than both the State of Alabama (75.3%) and national (80.4%) average. The County also has below average median and per capita incomes compared to state and national averages. A higher percentage of families live below the poverty line when compared to the state and national averages. Table 2.5.1 is a basic demographic profile of the county.

Table 2.5.1 Covington County Demographic Profile

Population (2008)	36,856
Male (2008)	17,597
Female (2008)	19,259
Total Housing Units (2007)	18,936
Percent high school graduate or better (2008)	68.5
Percent bachelor's degree or higher (2000)	12.3
Median Household Income (2007)	\$32,490
Per Capita Income (2007)	\$26,804
Families below the poverty level (2007)	19.4%

Sources: Alabama State Data Center, U.S. Census Bureau, Economic Development Partnership of Alabama

There are 14 municipalities in Covington County. These municipalities are Andalusia, Babbie, Carolina, Florala, Gantt, Heath, Horn Hill, Libertyville, Lockhart, Onycha, Opp, Red Level, River Falls, and Sanford. Andalusia is the county seat and has the largest population. Table 2.5.2 gives basic social characteristics of these populations. There are no municipalities within Covington County that has a median income that is at or above the state average. Estimates by race were not available for this update. There should be further updated information for the next five-year update.

Table 2.5.2 Municipal Demographic Data

Place	Andalusia	Babbie	Carolina	Florala	Gantt	Heath	Horn Hill
<i>Population (2008)</i>	8,978	623	245	1,884	237	247	233
<i>Minority (%) (2000)</i>	26.1	1.1	0.4	19.3	24.1	11.7	3.0
<i>65+ (%) (2008)</i>	20.9	15.8	18.2	21.9	21.4	18.4	13.5

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<i>Under 21 (%) (2008)</i>	26.7	22.1	30.8	25.9	29.2	23.0	29.1
<i>Median HH Income (\$) (2008)</i>	32,317	30,938	40,114	20,718	27,500	23,250	32,727

Place	Libertyville	Lockhart	Onycha	Opp	Red Level	River Falls	Sanford
<i>Population (2008)</i>	104	539	207	6,582	548	605	268
<i>Minority (%) (2000)</i>	8.5	25.2	1.0	16.8	11.3	37.5	2.2
<i>65 + (%) (2008)</i>	20.2	16.4	18.5	21.0	16.8	16.7	15.6
<i>Under 21 (%) (2008)</i>	16.0	16.6	19.0	26.8	29.0	26.0	27.0
<i>Median HH Income(\$)(2008)</i>	24,444	28,750	22,895	33,607	32,727	29,318	25,714

Sources: U.S. Census Bureau, Economic Development Partnership of Alabama

Andalusia covers the largest area of all the municipalities in Covington County (Table 2.5.3). Opp, the next largest city, has nearly the same amount of area. Lockhart has both the highest population and housing densities. This table will be updatable during the next five-year planning update.

Table 2.5.3 Housing and Population Densities by Municipality (2000)

Municipality	Land Area*	Water Area*	Total Area*	Housing Units	Housing Density**	Population	Population Density**
Andalusia	18.87	0.09	18.97	4,279	226.7	8,794	465.9
Babbie	11.54	0.06	11.60	284	24.6	627	54.3
Carolina	1.12	0.00	1.12	118	105.2	248	221.0
Floral	10.50	0.43	10.93	1,103	105.0	1,964	187.0
Gantt	0.64	0.03	0.68	125	194.0	241	374.0
Heath	0.91	0.00	0.91	138	151.6	249	273.6
Horn Hill	2.67	0.03	2.70	126	47.2	235	88.0
Libertyville	0.52	0.00	0.52	55	105.1	106	202.6
Lockhart	1.09	0.04	1.13	264	242.9	548	504.1
Onycha	0.84	0.01	0.84	113	135.3	208	249.1
Opp	17.15	0.87	18.02	3,187	185.8	6,607	385.2
Red Level	1.88	0.00	1.88	248	132.1	556	296.1

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River Falls	6.93	0.19	7.11	307	44.3	616	88.9
Sanford	4.00	0.00	4.00	135	33.8	269	67.3

*square miles

**density per square mile of land

Source: U.S. Census Bureau

Section 3 – Planning Process

This section of the plan addresses requirements of Interim Final Rule (IFR) Section 201.6(d)(3).

Section Contents

- 3.1 Multi-Jurisdictional Plan Adoption
- 3.2 Multi-Jurisdictional Planning Participation
- 3.3 Hazard Mitigation Planning Process
- 3.4 Public and Other Stakeholder Involvement
- 3.5 Integration with Existing Plans

Section	Section Updates
3.x	<ul style="list-style-type: none">• Changes in numbering and organization
3.1	<ul style="list-style-type: none">• Incorporated former “Section III-A Prerequisites”
3.2	<ul style="list-style-type: none">• Incorporated former “Section III-D Participating Jurisdictions”• Added three area school systems
3.3	<ul style="list-style-type: none">• Incorporated former “Section III-B Hazard Mitigation Planning Involvement”• Narrative reflects the current update process
3.4	<ul style="list-style-type: none">• Incorporated former “Section III-C Public Involvement”• Narrative reflects the current update process• Narrative adds more information concerning other stakeholder involvement
3.5	<ul style="list-style-type: none">• Incorporated former “Section III-E”• Added new plans that were consulted in the update

3.1 Multi-Jurisdictional Plan Adoption

Each jurisdiction will approve the plan when it is deemed “approvable pending adoption.”

3.2 Multi-Jurisdictional Planning Participation

Covington County and all municipalities continued participation according to the standards set forth by the Planning Committee. The Covington County, Andalusia, and Opp school systems were all new participants. PowerSouth Energy Cooperative, a local rural electric cooperative (REC), also participated in the development and will be covered in the Plan, as well as their members Covington Electric Cooperative and Wiregrass Electric Cooperative. The current participating jurisdictions include:

- Covington County
- City of Andalusia
- Town of Babbie
- Town of Carolina
- City of Florala
- Town of Gantt
- Town of Heath
- Town of Horn Hill
- Town of Libertyville
- Town of Lockhart
- Town of Onycha
- City of Opp
- Town of Red Level
- Town of River Falls
- Town of Sanford
- Andalusia City Schools
- Covington County Schools
- Opp City Schools
- PowerSouth Energy Cooperative (Private Nonprofit Utility)
 - Covington Electric Cooperative
 - Wiregrass Electric Cooperative

3.3 Hazard Mitigation Planning Process

The Update to the Covington County Hazard Mitigation Plan was developed through interaction between Covington County Emergency Management Agency, the Covington County Commission, the municipalities and school districts of Covington County, the Southeast Alabama Regional Planning and Development Commission (SEARP&DC), and the Alabama Emergency Management Agency (AEMA).

The tasks of the Hazard Mitigation Planning Committee are:

- Attend meetings
- Represent interests of their jurisdiction and its residents
- Collect information on jurisdiction’s resources
- Facilitate development of jurisdiction’s mitigation strategy

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Because Covington County jurisdictions had already adopted the current Plan, it was felt duplicitous to adopt a resolution supporting the process. Therefore, that task was removed. The update process also utilized more jurisdictional meetings and less county-wide meetings, so the meeting threshold task was also removed for the update process.

The Southeast Alabama Regional Planning and Development Commission facilitated the planning update process. PowerSouth Electric Cooperative was consulted for information concerning dam mitigation and assistance was received from the Alabama Forestry Commission – Covington County Office for wildfire information. The Geological Survey of Alabama (GSA) was consulted for geological hazard information. Copies of the Plan Update will be sent to neighboring jurisdictions for concurrence.

The Hazard Mitigation Planning Committee met on October 10, 2007, November 20, 2007, and January 22, 2008 in the Commission Chambers of the Covington County Administration Building in Andalusia. During the October 2007 and November 2007 meetings, packets of information containing risk assessment information from the existing plan that were distributed and discussed the Plan Update objectives. The January 2008 meeting discussed critical facilities and dam failure information. Both meetings only had a few jurisdictions represented, so the Planning Committee recommended meeting with each jurisdiction to update information needed for the Plan. Additional plan materials were sent to each jurisdiction to review prior risk assessment information, vulnerability information, and mitigation strategies. Jurisdictional meetings occurred throughout 2008 and early 2009 to assess the Plan and develop the needed updates. Additional meetings will be held, as needed, until the Plan Update is approvable.

3.4 Public and Other Stakeholder Involvement

The three committee meetings that occurred on October 10, 2007, November 20, 2007, and January 22, 2008 were advertised to the public in the *Andalusia Star-News*, *Opp News*, and *Floral News* and broadcasted over local radio stations, WAAO 103.7 FM, WOPP 1290 AM, WFXN 107.7 FM, and WAMI 102.3 FM – 860 AM.

A public meeting to review the final draft of the Covington County Hazard Mitigation Plan will occur prior to plan approval. The meeting will be advertised in the same fashion as the earlier public hearings and will be used to explain the updated Plan, as well as allowing the public to view and ask questions regarding the Plan. Copies of the final draft will be sent to the Andalusia, Opp & Covington County, and Tri-City chambers of commerce and local utility providers.

3.5 Integration with Existing Plans

The existing plans that were consulted upon drafting of the Covington County Natural Hazard Mitigation Plan include:

- **Alabama State Hazard Mitigation Plan (September 2007 Update)**
The State Hazard Mitigation Plan was consulted to assist with background information for the Risk Assessment (Section 4) component of the Plan update.

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- **City of Andalusia Comprehensive Plan**
The Comprehensive Plan was consulted again to assess the development the goals, objectives, and projects that is part of the City of Andalusia component of the Plan update. The Comprehensive Plan has not undergone a major update during this period.
- **Covington County Emergency Operations Plan**
The Covington County Emergency Operations Plan was consulted again to ensure consistency in the formulation of the respective Action Plans for each jurisdiction within Covington County.
- **Town of River Falls Flood Damage Prevention Ordinance**
The River Falls Flood Damage Prevention Ordinance was used for background information and in the formation of the Town of River Falls Action Plan. This ordinance has not been updated during this period.
- **Alabama Forestry Commission, Covington County Fire Readiness Plan**
The Fire Readiness Plan was consulted to research resources dedicated to wildfire response.
- **Emergency Action Plan: Gantt and Point “A” Dams (Revised June 2007)**
The revised Emergency Action Plan for Gantt and Point “A” Dams was used for assessing the vulnerability of residents in the Towns of Gantt and River Falls and Covington County and in formulating the Action Plans of those communities.
- **Alabama Drought Management Plan**
The Alabama Drought Management Plan was studied to provide background information of drought impacts on Covington County.
- **Comprehensive Economic Development Strategy (CEDS) Annual Report October 2008**
The Regional CEDS was consulted to ensure the Plan update is consistent with the region’s and Covington County’s economic development strategy.

Section 4 - Risk Assessment

This section of the plan addresses requirements of Interim Final Rule (IFR) Section 201.6 (c) (2).

Section Contents

- 4.1 Hazard Identification
- 4.2 Susceptibility to Hazards by Jurisdiction
- 4.3 Extent of Hazards by Jurisdiction
- 4.4 Previous Occurrences
- 4.5 Past Occurrence Documentation
- 4.6 Probability of Future Occurrence by Jurisdiction
- 4.7 Vulnerability Overview
- 4.8 Population Vulnerable to Hazards by Jurisdiction
- 4.9 Socially Vulnerable Populations
- 4.10 County Building Stock
- 4.11 Critical Facilities/Infrastructure Identification
- 4.12 Critical Facilities/Infrastructure Identification by Jurisdiction
- 4.13 Repetitive Loss Properties
- 4.14 Analyzing Development Trends

Section	Section Updates
4.x	<ul style="list-style-type: none"> Changes in numbering and organization Incorporated former “Section V – Assessing Vulnerability” within this Section
4.1	<ul style="list-style-type: none"> Changed some hazard types to better reflect State HMP <ul style="list-style-type: none"> Included Severe Thunderstorm (except Lightning) as component of High Wind category Included Tornado as component of High Wind category Divided impacts of Hurricane into Flood and High Wind categories Added Lightning component Deleted Expansive Soils component Added table of Federally Declared Disasters Heavily edited each hazard profile Added table of Federal Disaster Declarations within the county
4.2	<ul style="list-style-type: none"> Incorporated former “Section IV-B” Changed Table contents from universal susceptibility to qualitative descriptions
4.3	<ul style="list-style-type: none"> Incorporated former “Section IV-C” Created table for organizational purposes
4.4	<ul style="list-style-type: none"> Incorporated previous occurrence portion of former “Section IV-D” Updated and edited numbers of occurrences to reflect more recent history from the past decade (1999 or 2000 to present)
4.5	<ul style="list-style-type: none"> Incorporated former “Section IV-E” Updated occurrences and corrected inaccurate data
4.6	<ul style="list-style-type: none"> Incorporated frequency of occurrence portion of former “Section IV-C” Created jurisdictional tables and, where possible, added possible future damage

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	estimates
4.7	<ul style="list-style-type: none"> Added short narratives to overview vulnerability for each hazard
4.8	<ul style="list-style-type: none"> Incorporated former “Section V-A Overview of Affected Populations by Hazard Changed title Utilized 2008 population estimates
4.9	<ul style="list-style-type: none"> Incorporated former “Section V-B” Moved each factor table in front of factor map
4.10	<ul style="list-style-type: none"> Incorporated former “Section V-C” Updated structure count supplied by Covington County E-911
4.11	<ul style="list-style-type: none"> Incorporated former “Section V-D” Edited information for schools, sirens, and community shelters to reflect changes
4.12	<ul style="list-style-type: none"> Incorporated former “Section V-E” Changed and updated information based from local government input
4.13	<ul style="list-style-type: none"> Added section for Repetitive Loss Properties
4.14	<ul style="list-style-type: none"> Incorporated former “Section V-F” No further changes, due to lack of updatable information

4.1 Hazard Identification

Covington County and its municipalities identified several hazards that are addressed in the County's Hazard Mitigation Plan (Table 4.1.1). These hazards were identified through a process that included the County Hazard Mitigation Planning Committee's input, empirical data, historical occurrences, and researching susceptibility of locations within Covington County to separate hazards.

Due to its geographical location, Covington County is vulnerable to many hazards that potentially disrupt life and property. Hazards may affect Covington County throughout the calendar year. Covington County is vulnerable, at varying levels, to 11 hazards listed by the Alabama State Hazard Mitigation Plan. Hazard types that have no applicability to Covington County are: avalanche, coastal erosion, tsunami, and volcano. These hazards will not be mentioned any further. During the 2008-2009 plan update process, it was determined beneficial to group natural hazards in better accordance with the Alabama State Hazard Mitigation Plan. This includes dividing Hurricane/Coastal Storm into its two primary hazards: Flooding and High Winds. The hazards that can have potential effects on Covington County are:

- **Dam Failure**
- **Drought**
- **Earthquake**
- **Extreme Temperatures**
- **Flooding (Riverine and Flash)**
- **High Winds (Hurricanes, Tornadoes, Windstorms)**
- **Landslide**
- **Land Subsidence**
- **Lightning**
- **Wildfire**
- **Winter Storm**

Since many of these hazards are interrelated, some are grouped together for data collection and dissemination purposes (Example: High Winds). General descriptions of the hazards and historical occurrences are the basis for the hazard profile.

Table 4.1.1 Covington County Hazards

Hazard	How Identified	Why identified
Dam Failure	<ul style="list-style-type: none"> • Empirical data • Past occurrences 	<ul style="list-style-type: none"> • Vulnerable population below dams • Related to flooding concern
Drought	<ul style="list-style-type: none"> • Spatial location 	<ul style="list-style-type: none"> • Past occurrences
Earthquake	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Past occurrences adjacent to County

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Extreme Temperatures	<ul style="list-style-type: none"> • Spatial location 	<ul style="list-style-type: none"> • Possible occurrence
Flooding	<ul style="list-style-type: none"> • Review of past disasters • Existence of NFIP repetitive loss properties • Review of flood data • Input of Planning Committee 	<ul style="list-style-type: none"> • NFIP repetitive loss properties • Extensive hydrography • Several historical occurrences • Concern of Planning Committee
High Winds	<ul style="list-style-type: none"> • Review of past disasters • Input of Planning Committee 	<ul style="list-style-type: none"> • Several historical occurrences • Large damage producer • Concern of Planning Committee
Landslide	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Possible occurrence
Land Subsidence	<ul style="list-style-type: none"> • Empirical data 	<ul style="list-style-type: none"> • Possible occurrence
Lightning	<ul style="list-style-type: none"> • Review of past occurrences • Input from Planning Committee 	<ul style="list-style-type: none"> • Several historical occurrences • Can produce damage
Wildfire	<ul style="list-style-type: none"> • Review of Covington County Fire Readiness Plan 	<ul style="list-style-type: none"> • National Forest within County • Vulnerable population in forested areas
Winter Storm	<ul style="list-style-type: none"> • Review of past occurrences • Input of Planning Committee 	<ul style="list-style-type: none"> • Possible occurrence

Covington County has been included in several Federal Disaster Declarations, as shown in Table 4.1.2.

Table 4.1.2 Covington County Federally Declared Disasters

Date	Type of Incident
April 23, 1975	Severe Storms/Flooding
October 2, 1975	Severe Storms/Tornado
July 20, 1977	Drought
September 13, 1979	Hurricane Frederic
March 21, 1990	Severe Storms/Tornado
March 15, 1993	Severe Snowfall and Winter Storm
July 8, 1994	Severe Storms/Flooding
October 4, 1995	Hurricane Opal
March 9, 1998	Severe Storms/Flooding

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April 9, 1998	Tornadoes/Severe Thunderstorms
September 30, 1998	Hurricane Georges
September 15, 2004	Hurricane Ivan
July 10, 2005	Hurricane Dennis
April 28, 2009	Severe Storms/Flooding/Tornadoes/Straight-line Winds

Dam Failure

Dams provide communities several benefits, including water for drinking and agricultural purposes, recreation, and flood control. However, a malfunctioning dam can create large problems for an area that is downstream. The volume and energy of the water that is dammed can create casualties and property damage if released due to failure or misoperation.

Covington County has two dams that the U.S. Army Corps of Engineers' National Inventory of Dams considers "high risk" of a potential downstream hazard, Gantt and Point "A", which are both along the Conecuh River and operated by PowerSouth Energy Cooperative. The most susceptible jurisdictions if a dam failure occurs are River Falls, Gantt, and unincorporated areas along the Conecuh River.

Both Gantt and Point "A" dams were built in 1923. During the catastrophic flood of March 1929, Gantt Dam's wooden spillway failed causing a failure of a section of Point "A" Dam. A portion of Point "A" Dam failed again in 1938. Since reconstruction of the dams, neither has failed since 1929 and 1938, respectively. During subsequent flooding events, there have been no problems with dam failure.

A study updated in 2006 developed scenarios to estimate the effects of flooding due to dam failure. These scenarios and the estimated number of structures affected are listed in Table 4.1.3 below.

Table 4.1.3

Inundation Scenario	Estimated Structures Affected
100-Year Flood	501
No Breach	501
Gantt Dam Breach	470
Gantt and Point "A" Dam Breach	465
Sunny Day Breach	205

The effects of flooding from dam failure will be examined through the Sunny Day Breach scenario, since research has shown that the inundation areas near Gantt and Point "A" dams would receive heavier impact by a natural flooding event than if the dams fail through breaching.

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In this scenario, dam failure could potentially damage 205 total structures (182 residential and 23 commercial), of which 18 structures (11 commercial and seven (7) residential) are in Gantt, 17 structures (ten (10) commercial and seven (7) residential) are in River Falls, and 170 structures (168 residential and two (2) commercial) in portions of unincorporated areas of Covington County adjacent to the Conecuh River and Patsaliga Creek. Both Gantt and Point “A” dams are inspected regularly and have not had instances of failure in over 70 years. Because of this fact and that PowerSouth Energy Cooperative undertakes extensive preventive actions; the qualitative probability of dam failure in Covington County is Low.

Drought

Drought occurs when there is below-average precipitation over an extended period of time, affecting hydrological and agricultural concerns. Meteorological drought is the departure of precipitation from normal that causes two other drought types that negatively affect areas. Hydrological drought occurs when a below average amount of precipitation affects the water table, potentially affecting drinking water supply. Agricultural drought occurs when there is not enough soil moisture to support crop growth or good pasture conditions.

The entire area of Covington County is susceptible to drought due to its location in south-central Alabama, which is prone to unpredictable precipitation patterns including extended periods of below-average rainfall. Covington County’s public water supply is drawn from groundwater sources, so extended periods of exceptional drought would potentially limit water supply.

In April 2006, Covington County experienced moderate drought (D1) conditions according to the U.S. Drought Monitor. The moderate drought (D1) conditions returned in June 2006, with severe drought (D2) and extreme drought (D3) conditions appearing in July 2006, with the extreme drought (D3) conditions remaining through August 2006 and the severe drought (D2) conditions remaining until September 2006. Covington County still had moderate drought (D1) conditions until November 2006.

In 2007, moderate drought (D1) conditions returned in May. These conditions worsened to severe drought (D2) and extreme drought (D3) in June 2007 and slightly improved to moderate (D1) to severe drought (D2) in July 2007. Extreme drought (D3) as well as exceptional drought (D4) conditions, the most serious severity rating, returned to Covington County in August 2007. In September 2007, drought conditions slightly improved to severe (D2) to extreme (D3) conditions. However, in October 2007 exceptional (D4) conditions returned, but had improved to moderate (D1) conditions by the end of that month. Covington County was primarily free of drought conditions by January 2008. In 2008, moderate drought (D1) conditions returned in June continuing into August.

The conditions that cause drought are very unpredictable and the effects of extensive droughts are not easily quantified. Covington County has had several instances of drought with varying consequences. Extensive drought conditions occurred in 2006 and 2007 negatively affecting agricultural production and are probably linked to the number of wildfires increasing for both years. The probability of potential damage occurring from extensive drought conditions in the future is regarded as Medium.

Earthquake

An earthquake is a sudden movement of the earth, caused by a release of energy from the crust. Most earthquakes occur along faults, which are cracks in the earth's crust. Earthquakes can cause property damage on the surface and subsurface by destroying buildings, utility lines, communications, and other infrastructure.

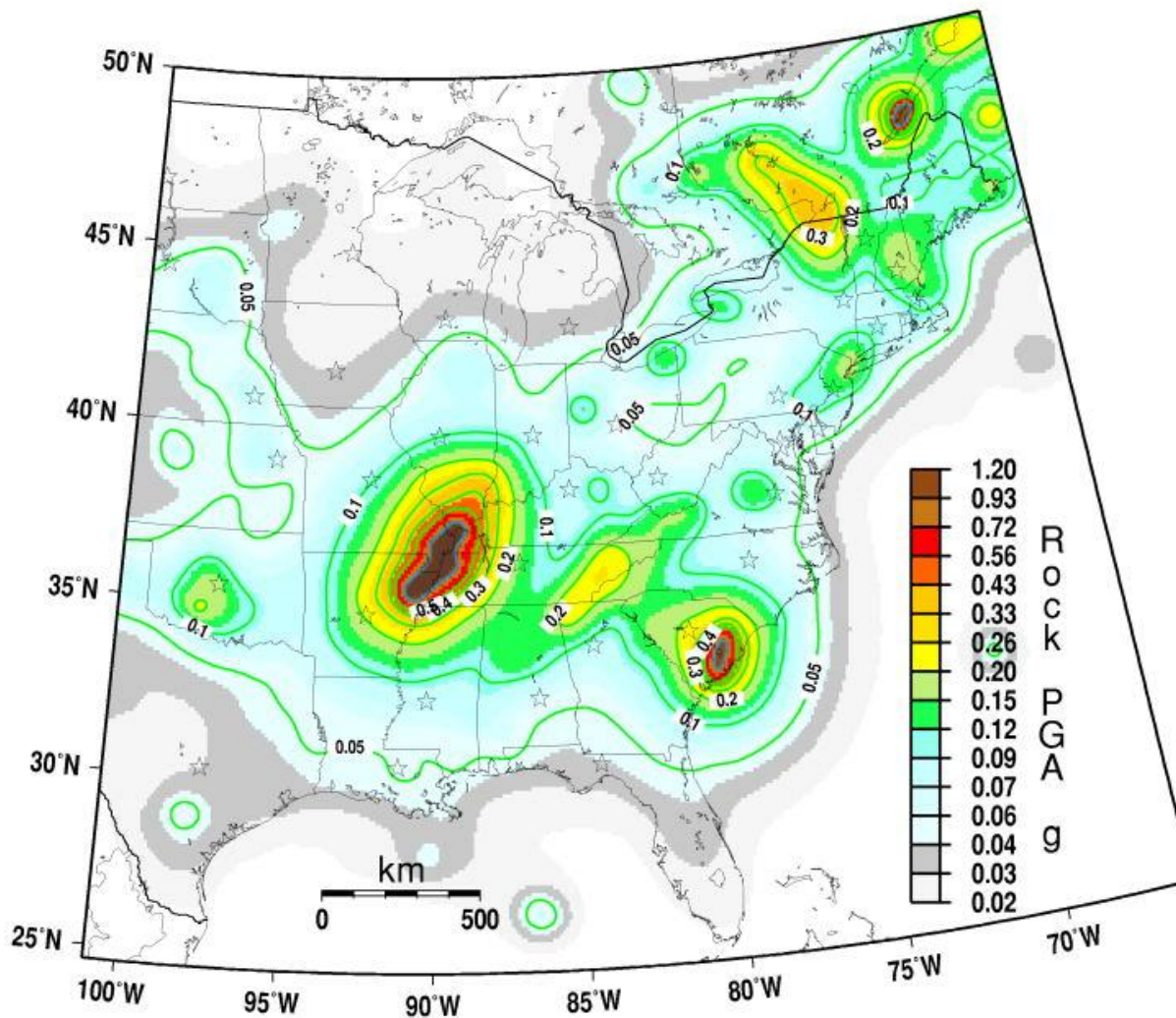
According to the Alabama State Hazard Mitigation Plan, four seismic zones affect the state. These are the New Madrid Seismic Zone (NMSZ), the Southern Appalachian Seismic Zone (SASZ) (also known as the Eastern Tennessee Seismic Zone), the South Carolina Seismic Zone (SCSZ), and the Bahamas Seismic Zone (BSZ), which all mostly affect areas of Alabama away from Covington County. Covington County is not especially at risk from an earthquake, though minor effects from the four aforementioned seismic zones are not out of the question.

Earthquakes are commonly measured in two ways. The Richter Magnitude Scale measures the earthquake's magnitude, or size, and the Modified Mercalli Intensity Scale measures the earthquake's intensity or the damage caused. The Richter Scale has magnitude measurements from 1 to 9, with a measure of 1 being recorded but not felt, and a measure of 9 being a great earthquake that causes damage over a large area. The Modified Mercalli Intensity Scale has measurements from I to XII, with I being hardly felt, if at all, and XII being total destruction of the surface.

The most recent earthquake that produced any measurable effects on Covington County occurred on October 24, 1997 near Atmore, Alabama, west of Covington County. The epicenter recorded a magnitude of 4.9. Covington County received only minor effects with no recorded damages. Because of Covington County's distance from any active seismic zone and since there has been no recorded damage from any earthquake, it is believed that Covington County would only receive minor effects from earthquake occurrence.

According to the United States Geological Survey (USGS), the maximum peak acceleration for Covington County is very low (Figure 4.1.1). Peak acceleration is a measure of how fast the rate of the earth's movement changes compared to the gravitational acceleration rate during an earthquake. Figure 4.1.2 shows the location and magnitudes of recorded earthquakes in Alabama. There are no recorded events in Covington County; therefore no further profiling will be done for this hazard.

PGA with 2%/50 yr PE, 2008



GMT Apr 11 15:37 PGA 2%/50yr PE. BC rock site condition

Figure 4.1.1 <http://eqhazmaps.usgs.gov/2002October/CEUS/CEUSpga500v3.gif>

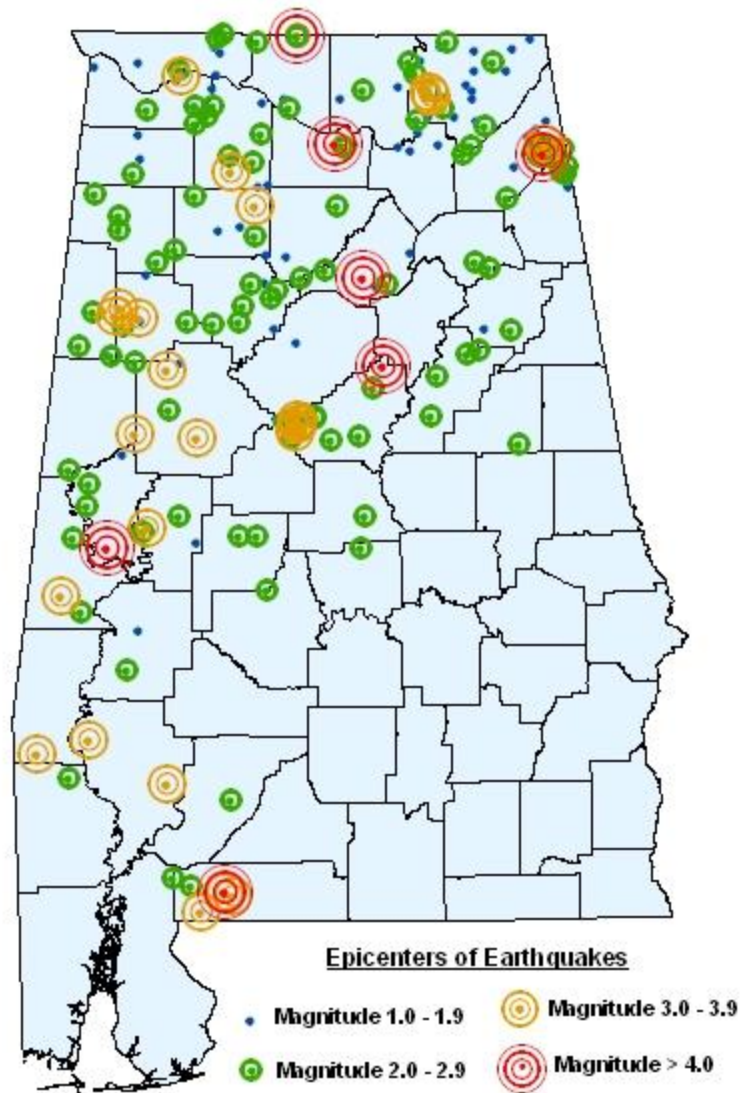


Figure 4.1.2 http://www.gsa.state.al.us/gsa/geologichazards/earthquakes/Hist_Quakes.jpg

Extreme Temperatures

Extreme temperatures are abnormal maximum and minimum temperatures that provide stressful conditions to a particular area. Extreme temperatures may be extreme heat in the summer or extreme cold in the winter. Covington County has a humid, subtropical climate that regularly produces high maximum temperatures in the summer and mild temperatures in the winter. Extreme temperatures may cause medical risks including heat strokes in hot weather and hypothermia in cold weather.

The entire area of Covington County experiences periodical extreme heat. This extreme heat may be persistent and above average for several weeks at a time. Covington County does not normally have any problems with minimum temperatures, as mild winters are a normalcy.

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Covington County receives maximum temperatures at or above 100 degrees Fahrenheit during the summer months. During persistent, extreme heat periods, residents, livestock, and agricultural crops may be stressed by the high maximum temperatures. Historically, extreme heat and drought have occurred simultaneously inside Covington County. According to FEMA's Extreme Heat Fact Sheet, Covington County has moderate susceptibility to extreme heat and drought. This can affect Covington County's agricultural uses, and also contribute to wildfire incidents.

Covington County records excessive maximum temperatures almost annually. The effects of extreme heat have been relatively minor, with the exception of coincidental drought or wildfire conditions. The probability that Covington County will experience extreme heat that causes attributed effects is Medium. Since Covington County does not experience extreme periods of excessive minimum temperatures, any further profiling will focus on extreme heat.

Flooding

Flooding is considered the most frequent and costly natural hazard in the United States. Flooding normally occurs due to excessive precipitation and is dependent on many factors, including drainage basin characteristics, antecedent soil moisture conditions, weather patterns, land cover, and many others. Alabama averages the most rainfall of any state, creating a high potential for flooding. There are two types of flooding that affects Covington County: flash and riverine.

Flash flooding is a short-term event that occurs when heavy precipitation falls in a localized area. Flash flooding is common in urban areas with large amounts of impervious surfaces that cause the precipitation to runoff instead of drain into the soil. The runoff can become fast-moving rivers that can cause property damage and death.

Riverine flooding is a longer-term event that is caused by excessive precipitation that causes rivers and streams to flood out of their banks, causing damage to developments within those areas. Excessive precipitation can also potentially lead to dam failure of Gantt and Point "A" Dams that can affect people and resources along the Conecuh River and Patsaliga Creek.

Andalusia: The City of Andalusia is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The city is participating in the National Flood Insurance Program. Andalusia experiences general flash flooding of a minor nature and there are nine (9) structures that are located within a flood zone.

Babbie: The Town of Babbie is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is not participating in the National Flood Insurance Program. Babbie experiences occasional flooding along Lightwood Knot Creek on the eastern periphery, which has affected the gas station/convenience store in the past.

Carolina: The Town of Carolina is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is not participating in the National Flood Insurance Program. Carolina has had one structure flooded in the 1990s along Hog Foot Creek.

Floralá: The City of Floralá is mapped for Special Flood Hazard Areas. The city is participating in the National Flood Insurance Program with new maps effective in November 2009. Floralá experiences flash flooding and minor drainage issues.

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Gantt: The Town of Gantt is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is not participating in the National Flood Insurance Program. There are 27 structures (14 residential and 13 commercial) in the floodplain.

Heath: The Town of Heath is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is not participating in the National Flood Insurance Program. Heath only has isolated drainage problems that cause minor flash flooding.

Horn Hill: The Town of Horn Hill is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is not participating in the National Flood Insurance Program. Horn Hill has minor flooding issues along Indian Creek in the eastern section of town that has affected a bridge, but has not caused private property damage.

Libertyville: The Town of Libertyville is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is not participating in the National Flood Insurance Program. Libertyville has not had documented flood damages.

Lockhart: The Town of Lockhart is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is not participating in the National Flood Insurance Program. Lockhart has some minor drainage problems, but no extensive flood damages.

Onycha: The Town of Onycha is not mapped for Special Flood Hazard Areas. The town is not participating in the National Flood Insurance Program. Onycha has not experienced anything other than minor issues from flash flooding.

Opp: The City of Opp is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The city is participating in the National Flood Insurance Program. Opp has had minor flooding issues in the southwest areas of town along Indian Creek.

Red Level: The Town of Red Level is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is participating in the National Flood Insurance Program. Red Level has had some drainage problems along North Street in the northeastern sections of town.

River Falls: The Town of River Falls is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The town is participating in the National Flood Insurance Program. There are 25 structures (13 residential and 12 commercial) in the floodplain.

Sanford: The Town of Sanford is not mapped for Special Flood Hazard Areas. The town is not participating in the National Flood Insurance Program. Sanford has not had any documented flood damage.

Covington County: Covington County is mapped for Special Flood Hazard Areas. New maps were effective in November 2009. The county is participating in the National Flood Insurance Program. The worst areas for flooding have occurred along the Conecuh River, especially areas along Gantt and Point “A” lakes.

There are three primary events that cause flooding in Covington County, tropical systems, non-tropical related systems, and dam failure. All events may provide heavy impacts in flooding. There has been additional engineering analysis for flooding caused by dam failure in Covington County, but not other types of flooding. Covington County has had periodic flooding problems throughout history, mostly along the Conecuh River. Other than areas around Gantt and Point “A” lakes, most residents live outside of flood hazard areas and topography within the county has assisted in keeping flood waters from expanding over developed areas. Covington County has also received occasional damage from flash flooding occurrences, as streets occasionally

have drainage problems or experience washing conditions. The County received widespread damage from flash flooding in March 2009, especially in southern and eastern areas.

Excessive rainfall that causes flooding may affect Covington County year-round. Even though tropical systems normally will affect Covington County in late summer or early autumn, non-tropical systems and dam failure may affect the area at any time. During most years, there is at least a localized event of flash flooding. Riverine flooding may bring extensive property damage and casualties to Gantt, River Falls, and some unincorporated areas of Covington County. Due to the chances of multiple events that at least cause minor damages, Covington County, Gantt, and River Falls have a High probability of flooding, while the remaining municipalities have a Medium probability of flooding.

High Winds (Hurricanes, Tornadoes, Other Wind Events)

High wind events in Covington County are normally caused by hurricanes, tornadoes, and severe thunderstorms. Hurricanes and tropical systems that affect Covington County are non-frontal low pressure systems that form or strengthen in the Gulf of Mexico. Whenever these storms make landfall along the Gulf Coast, destructive forces of high winds, heavy sustained precipitation, and tornadoes ensue. The Atlantic Basin Hurricane Season (which affects Covington County) is from June 1 to November 30 of each year.

A tornado is a rapidly rotating funnel of air that extends to the ground from clouds. Tornadoes are one of the least predictable weather events. Tornadoes do not cover a large spatial area, but are very damaging and can be deadly in the areas impacted.

Severe thunderstorms are defined by the National Weather Service as having wind speeds of 58 miles per hour or higher, producing hail at least three quarters inch (3/4") in diameter, or possessing tornadic capabilities. These storms may produce damage equivalent to tornadoes over a larger spatial area.

The entire area of Covington County experiences high wind events caused by hurricanes, tornadoes, or severe thunderstorms. The high wind effects of hurricanes will normally be widespread throughout the county, the high wind effects of severe thunderstorms will have varying spatial effects from widespread to localized, and high wind effects of tornadoes will normally be localized, but can spread a narrow path of destruction over a lengthy area.

Hurricane intensity is classified using the Saffir-Simpson Scale, which categorizes hurricane events primarily using maximum sustained winds, but also examining barometric pressure readings and potential storm surge. This gives an estimate of the potential damage that will occur from a hurricane. The Saffir-Simpson Scale is shown in Table 4.1.4.

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Table 4.1.4

SAFFIR-SIMPSON SCALE		
Category	Maximum Sustained Wind Speed (MPH)	Damage Description
1	74-95	MINIMAL: No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Some damage to poorly constructed signs.
2	96-110	MODERATE: Some roofing material, door, and window damage of buildings. Considerable damage to shrubbery and trees with some trees blown down. Considerable damage to mobile homes, poorly constructed signs, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of the hurricane center.
3	111-130	EXTENSIVE: Some structural damage to small residences and utility buildings with a minor amount of curtainwall failures. Damage to shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane.
4	131-155	EXTREME: More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Complete destruction of mobile homes. Extensive damage to doors and windows. Low-lying escape routes may be cut by rising water 3-5 hours before arrival of the center of the hurricane.
5	>155	CATASTROPHIC: Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. All shrubs, trees, and signs blown down. Complete destruction of mobile homes. Severe and extensive window and door damage. Low-lying escape routes are cut by rising water 3-5 hours before arrival of the center of the hurricane.

Major hurricanes that affect Covington County may provide Category 2 impacts. In the past five years, Covington County has received major wind damage from Hurricane Ivan and minor wind damage from Hurricane Dennis and Hurricane Katrina. Covington County is positioned less than 100 miles from the Gulf of Mexico, so it is in a prime location to be affected by tropical systems.

Tornado intensity is classified using the Enhanced Fujita (EF) Scale, which is an update to the original Fujita Scale, implemented in February 2007 (Table 4.1.5). The EF Scale is still primarily a wind estimate indicator that is based on three-second gust derived by the levels of damage that occur during a tornado event.

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Table 4.1.5

ENHANCED FUJITA SCALE				
F Number	3 Second Gust (mph)	EF Number	3 Second Gust (mph)	Damage Description
0	45-78	0	65-85	LIGHT DAMAGE: Some damage to chimneys; tree branches broken off; shallow-rooted trees pushed over; sign boards damaged.
1	79-117	1	86-110	MODERATE DAMAGE: The lower limit is the beginning of hurricane wind speed. Roof surfaces peeled off; mobile homes pushed off foundations or overturned; moving autos pushed off roads.
2	118-161	2	111-135	CONSIDERABLE DAMAGE: Roofs torn off from houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.
3	162-209	3	136-165	SEVERE DAMAGE: Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.
4	210-261	4	166-200	DEVASTATING DAMAGE: Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown; large missiles generated.
5	262-317	5	Over 200	INCREDIBLE DAMAGE: Strong framed houses lifted off foundations and carried considerable distances to disintegrate; automobile-sized missiles fly through air in excess of 100 yards; trees debarked.

Covington County is susceptible to tornadoes. Since 2000, Covington County has been affected 13 tornadoes, of which one (1) has caused casualties. None of these tornadoes have exceeded F/EF2, but Covington County has had an F3 tornado in the past and, as documented, deaths and injuries have occurred with lower intensity tornadoes.

Severe thunderstorms with straight line winds that affect Covington County can create wind gusts up to the equivalence of an EF1 tornado. Straight line wind events have caused approximately 75 instances of documented damages since 2000.

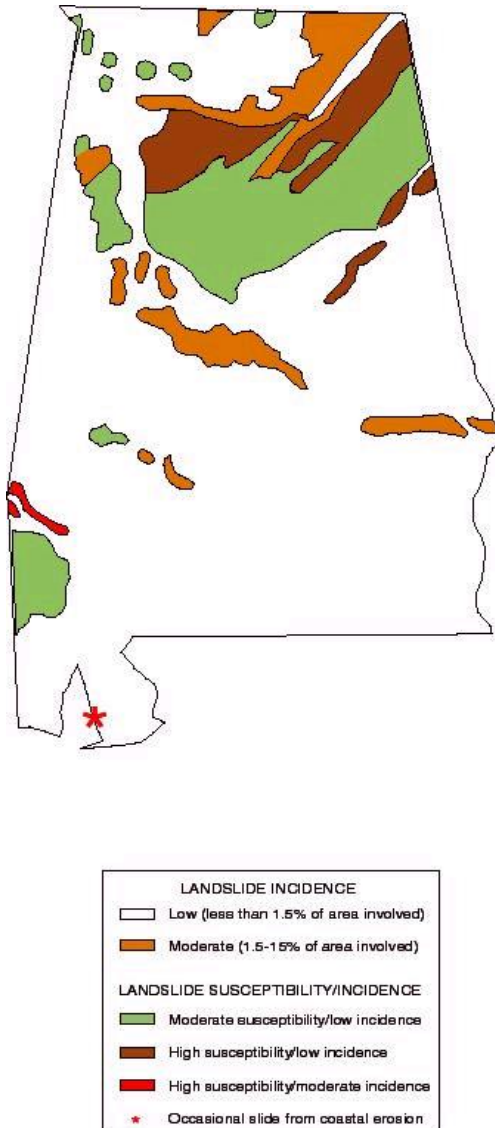
High wind events that cause property damage and potential casualties may affect Covington County throughout the year and has averaged multiple occurrences a year in recent history. This recent history of damaging events causes Covington County to have a High probability of high wind occurrences.

Landslide

A landslide is a gravity-aided downward and outward movement of soil, rock, and vegetation that lies normally on a sloped surface. Landslides can occur from both natural and human-induced events. Common causes are composition changes on the surface, excessive rain, and construction practices.

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The Geological Survey of Alabama (GSA) documents that Covington County has low incidence of landslides occurring (Figure 4.1.3). There has been no mention by the GSA, Hazard Mitigation Planning Committee, or the public dealing with concerns about landslides, therefore there will be no further profile completed.



Source: U.S. Geological Survey
Figure 4.1.3 <http://www.gsa.state.al.us/gsa/landslides.html>

Land Subsidence

According to the Geological Survey of Alabama (GSA), the most common cause of land subsidence in Alabama is development of sinkholes in areas that have underlying soluble carbonate rocks and collapse of underlying abandoned mines. Activities that can cause land subsidence, or sinkholes, include a change in the water table level, change in groundwater flow characteristics, and surface loading that puts pressure on the land surface. Figure 4.1.4 shows

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areas of active land subsidence and outcrops of carbonate rocks, which are susceptible to land subsidence.

The GSA displays that there is an area of land subsidence in southern Covington County. Covington County is shown to be susceptible to land subsidence, due to its underlying geology. There were minor sinkholes noted in Red Level and unincorporated Covington County several years ago, but no damage was mentioned.

Any sinkholes formed in Covington County would be regarded as minor and research has not shown any reports of damage in recent history, as there were no reports of land subsidence damage caused by the excessive droughts of 2006 and 2007. The probability for further land subsidence development would be regarded as Low. Land subsidence will not be further profiled at this time, but Covington County should monitor any future land subsidence activities for future updates.

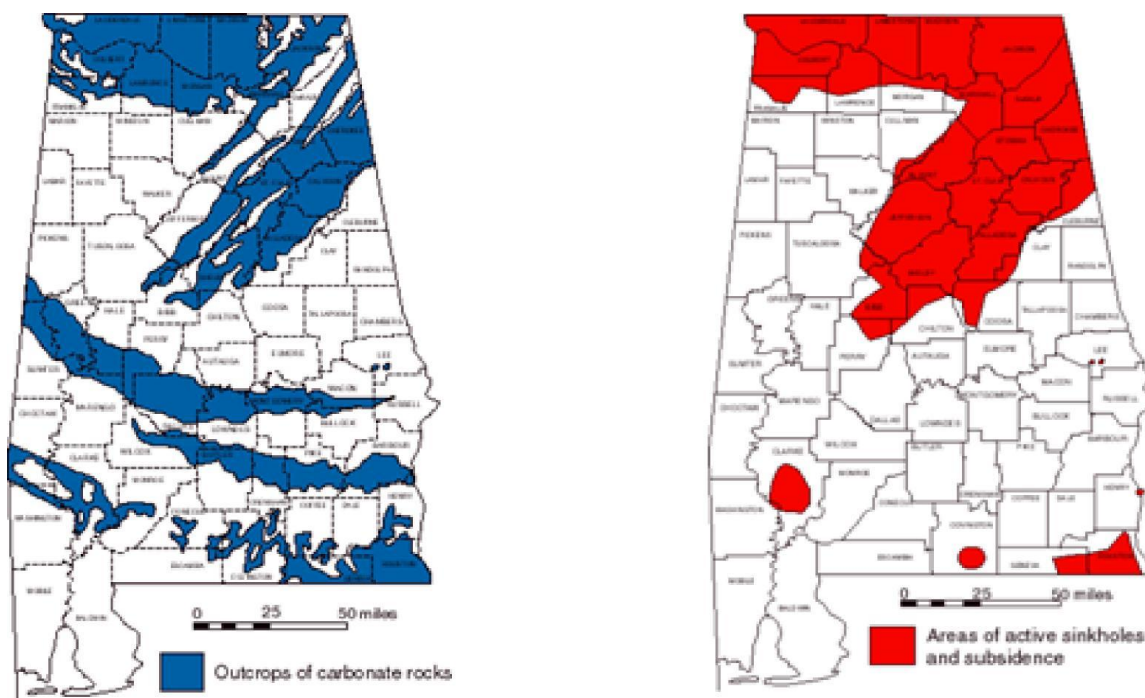


Figure 4.1.4

<http://www.gsa.state.al.us/gsa/sinkholes/sinks.html>

Lightning

Lightning events are capable of inflicting damage to property and are a threat to humans, as well. Lightning normally occurs as a byproduct of thunderstorms and will occur during non-severe thunderstorms. Lightning events may affect the entire area of Covington County any time of the year, though they are more numerous in spring and summer. Their occurrences are very numerous throughout the County and have a historical record of causing damage and fatalities, though effects are very localized in nature.

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Lightning events occur often in Covington County, due to its location near the Gulf Coast. Though lightning occurrences are plentiful, major damage from lightning does not occur as much from wind events that occur in thunderstorms. Covington County has three (3) documented occurrences of property damage from lightning since 2000. Lightning is very dangerous and can create more extensive property damage or human casualties at any time. Due to the prevalence of lightning events, Covington County has a Medium probability for major damage caused by lightning.

Wildfire

Wildfires occur most often from debris burning and incendiary causes, adding up to 80% of wildfire causes in the last few years, which can spread throughout forested areas and affect development within wildland urban interface (WUI) areas. Fuel sources (trees and grass) and weather (dry periods/lightning strikes) can contribute to wildfires in Covington County. The Conecuh National Forest covers southwestern Covington County.

Much of Covington County is susceptible to wildfire, as 75% of the County is forest land. A Fire Occurrence map produced by the Alabama Forestry Commission (Figure 4.1.5) illustrates that Covington County has one area with Extreme occurrence rating and several isolated areas with High occurrence rating. The area shown with an Extreme rating is located southeast of Onycha in the northern portion of the Covington Wildlife Management Area. The areas shown with High ratings are scattered in unincorporated areas throughout Covington County. All of the municipalities have areas with Medium occurrence ratings within their jurisdictions.

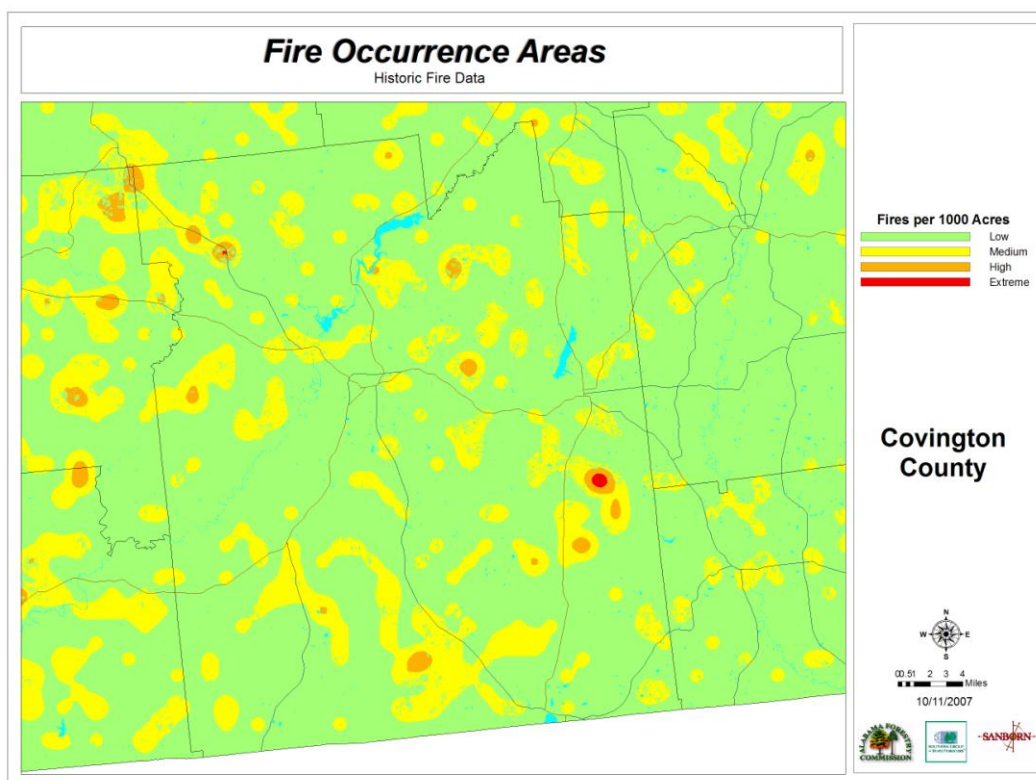


Figure 4.1.5
Source: Alabama Forestry Commission

Covington County ranked 31st out of 67 counties in number of wildfires (223) and 34th out of 67 counties in total acres burned (2,433.5) between 2004 and 2008 according to figures collected by the Alabama Forestry Commission. The areas where wildfires occur have been primarily in very rural areas of the County.

According to the Alabama Forestry Commission, high fire risk exists in the county's municipalities with the exception of Gantt and Very High fire risk exists in several areas in the unincorporated areas of Covington County, including much of the Covington Wildlife Management Area southeast of Onycha and concentrated areas in northwest and southern portions of the County. Covington County has been averaging 45 to 50 wildfires per year with almost 500 acres burned annually over the past decade. There is a prevalence of wildfires in Covington County, with most being isolated with minor effects. Therefore, Covington County and most municipalities are regarded to have a Medium probability for major damage caused by wildfires, with Gantt having a Low probability due to only having a maximum of Medium risk in its jurisdiction.

Winter Storm

Winter storms normally cause heavy amounts of frozen precipitation (snow, freezing rain, and ice), windy conditions, and extreme cold. The effect of winter storms on a community depends

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on how equipped the community is to handle the storm, as winter storms can cause power outages, transportation problems, and collapsed roofs on structures.

The entire area of Covington County would be susceptible to a winter storm if one were to develop this far south. The northern areas of the County would most likely receive slightly greater impact from a winter storm.

Covington County receives winter storms very infrequently and has had very minor recorded damages. It has been almost 30 years since frozen precipitation affected the County. Covington County, like many counties in the southeastern United States, does not keep much equipment to react to winter weather events. Most likely, the most extreme winter storm would produce up to 2"-3" of snow or ice.

Winter storms occur very infrequently in Covington County and have a short duration of effects. Therefore, Covington County has a Low probability for major damage caused by a winter storm and there will be no further profiling on this hazard.

4.2 Susceptibility to Hazards by Jurisdiction

Table 4.2.1 summarizes each jurisdiction's susceptibility to prioritized hazards as described in the profiles above. Many hazards will affect the entirety of Covington County. Dam failure and riverine flooding are examples of hazards that would not potentially affect every jurisdiction and wildfires are projected to affect unincorporated Covington County greater than other jurisdictions. These qualitative descriptions are from historical occurrences and risk factors decided by the area jurisdictions. Because of the lack of comprehensive data on many of the hazards, susceptibility to future damage will be noted by categories of High, Medium, Low, or None described below.

- **High:** Probable major damage in a 1-10 Year Period
- **Medium:** Probable major damage in a 10-50 Year Period
- **Low:** Probable major damage in a 100 Year Period
- **None:** No probable major damage

Table 4.2.1

Hazard	Andalusia	Babbie	Carolina	Floral	Gantt	Heath	Horn Hill
Dam Failure	None	None	None	None	Low	None	None
Drought	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Extreme Temperatures	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Flooding	Medium	Medium	Medium	Medium	High	Medium	Medium
High Winds	High	High	High	High	High	High	High
Lightning	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Wildfire	Medium	Medium	Medium	Medium	Low	Medium	Medium

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Hazard	Libertyville	Lockhart	Onycha	Opp	Red Level	River Falls	Sanford	County
Dam Failure	None	None	None	None	None	Low	None	Low
Drought	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Extreme Temperatures	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Flooding	Medium	Medium	Medium	Medium	Medium	High	Medium	High
High Winds	High	High	High	High	High	High	High	High
Lightning	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Wildfire	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium

4.3 Extent of Hazards by Jurisdiction

Table 4.3.1 summarizes each jurisdiction's potential severity of hazard events as described in the profiles above. Most of these hazards will affect the entirety of Covington County similarly. These summary descriptions are from identified risk factors and settlement patterns.

Table 4.3.1

Hazard	Andalusia	Babbie	Carolina	Floral	Gantt
Dam Failure	No potential damage	No potential damage	No potential damage	No potential damage	Flooding several structures along Gantt Lake
Drought	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources
Extreme Temperatures	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk
Flooding	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas	Flooding multiple structures along Gantt Lake, street and property damage, casualties
High Winds	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties
Lightning	Isolated property damage,	Isolated property damage,	Isolated property damage,	Isolated property damage,	Isolated property damage,

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	casualties	casualties	casualties	casualties	casualties
Wildfire	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties

Hazard	Heath	Horn Hill	Libertyville	Lockhart	Onycha
Dam Failure	No potential damage	No potential damage	No potential damage	No potential damage	No potential damage
Drought	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources
Extreme Temperatures	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk
Flooding	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas
High Winds	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties
Lightning	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties
Wildfire	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties

Hazard	Opp	Red Level	River Falls	Sanford	County
Dam Failure	No potential damage	No potential damage	Flooding several structures along Point “A” Lake and Conecuh River	No potential damage	Flooding that would damage up to 205 structures (incl. Gantt/River Falls) along Conecuh River
Drought	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources	D4 drought, loss of agricultural production, depleted groundwater resources, increased risk of wildfires

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Extreme Temperatures	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk	Persistent temperatures above 100°, increased drought risk
Flooding	Street and property damage along streams and drainage areas	Street and property damage along streams and drainage areas	Flooding multiple structures along Point “A” Lake and Conecuh River, street and property damage, casualties	Street and property damage along streams and drainage areas	Flooding multiple structures along Conecuh River, Yellow River, Patsaliga Creek, street and property damage, casualties
High Winds	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties	Category 3 and EF-5 damage to property and utilities, casualties
Lightning	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties	Isolated property damage, casualties
Wildfire	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties	Property and timber damage, environmental damage, casualties

4.4 Previous Occurrences

The previous occurrences of hazards within Covington County and its municipalities are taken from information provided by the National Weather Service, the National Climatic Data Center, *The Andalusia Star-News*, and the Covington County Hazard Mitigation Planning Committee.

The information provided should not be assumed to be totally comprehensive. Historical recording of events in rural areas are inconsistent, due to fewer resources than a large metropolitan area. Also, extensive radar advances in recent years have recorded more events than in the past. The events listed below are ones that there is a record of damage kept. There are assumed to be many historical events that have not been recorded. However, the sources cited provide a good overview of the hazard occurrences that have taken place within Covington County.

To reflect recent activity and, assumedly, more comprehensive record-keeping, occurrences by jurisdiction since 2000 (Table 4.4.1) are listed below, with the exception of wildfires, which are recorded from 1999 through 2008, and high wind and flooding events, which are recorded from 1990 to better reflect potential activity of those events.

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Table 4.4.1 Past Occurrences by Jurisdiction

Hazard	Andalusia	Babbie	Carolina	Floral	Gantt	Heath	Horn Hill
Dam Failure	0	0	0	0	0	0	0
Drought	2	2	2	2	2	2	2
Extreme Heat	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flood	6	5	5	5	5	5	5
High Winds	50	6	6	16	9	5	6
Lightning	3	0	0	1	0	0	0
Wildfire	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Hazard	Libertyville	Lockhart	Onycha	Opp	Red Level	River Falls	Sanford	County
Dam Failure	0	0	0	0	0	0	0	0
Drought	2	2	2	2	2	2	2	2
Extreme Heat	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flood	5	5	5	5	5	7	5	13
High Winds	6	6	6	21	11	16	7	75
Lightning	0	0	0	1	1	0	0	1
Wildfire	N/A	N/A	N/A	N/A	N/A	N/A	N/A	455

4.5 Past Occurrence Documentation

Note: This section has been updated with more recent information from the original Plan.

The descriptions about prior hazards within Covington County and its municipalities are taken from information provided by the National Weather Service, the National Climatic Data Center, *The Andalusia Star-News*, and representatives of the Covington County Hazard Mitigation Planning Committee. Some of the information presented will reflect the different sources the data was received from.

This section is broken into sections for events that affected multiple jurisdictions within Covington County plus individual sections of events in Andalusia, Babbie, Carolina, Floral, Gantt, Heath, Horn Hill, Libertyville, Lockhart, Onycha, Opp, Red Level, River Falls, Sanford, and unincorporated Covington County.

Time periods available for each hazard may vary, resulting from different data sources and methods of collection. This list of past occurrences is as complete as possible at this time.

However, due to inconsistent reporting, especially in rural areas in the past, events are not as comprehensive as liked. As new and improved data is available, this list will be amended to reflect those changes.

Multi-jurisdictional Events
Hurricane/Tropical Storms

The following federally declared and other multi-jurisdictional events have caused widespread impact on Covington County since 1975.

- *September 1975*: Hurricane Eloise made landfall between Destin, Florida and Panama City Beach, Florida on September 23, 1975. It passed near Covington County at hurricane force and caused wind damage throughout the county, especially in the Florala vicinity. There was one hurricane-related injury reported. There was approximately \$5.5 million worth of property and agricultural damage in Covington County.
- *September 1979*: Hurricane Frederic made landfall near Mobile Bay on September 13, 1979. Covington County received minor tree damage and power outages, as Frederic had minor effect on the area.
- *July 1994*: Tropical Storm Alberto made landfall near Destin on July 3, 1994. Eastern areas of Covington County received some tree and building damage from winds. The City of Opp received an extensive amount of street and drainage damage from flooding.
- *August 1995*: Hurricane Erin made landfall near Pensacola, Florida on August 3, 1995. Covington County received little damage from Erin.
- *October 1995*: Hurricane Opal made landfall near Pensacola Beach, Florida as a Category 3 hurricane on October 4, 1995. Covington County received sustained winds over 100 miles per hour. There was extensive damage over Covington County, with an estimated \$48 million in property damage, much of it from the Conecuh National Forest, and \$4 million in crop damage. The entire pecan crop was lost and there was tremendous damage to the timber crop. This was a declared disaster for Covington County.
- *September 1998*: Hurricane Georges made landfall near Biloxi, MS, then made a slow eastward path across the extreme southern Southeast United States. Much of Covington County had over two feet of rain, with Andalusia having a report of 26.9 inches. There was an estimated \$174.2 million in property damage and \$5 million in crop damage in Southwest Alabama from Georges. This was a declared disaster for Covington County.
- *August 2001*: Tropical Storm Barry made landfall near Santa Rosa Beach, FL then moved northwest through South Alabama. Covington County received around \$100,000 of wind damage from Barry.
- *September 2004*: Hurricane Ivan made landfall near Gulf Shores, AL on September 16, 2004, then moved north-northeast through Alabama. Covington County received damage from high winds and flooding rains.
- *July 2005*: Hurricane Dennis made landfall at Santa Rosa Island, FL on July 10, 2005 and moved north-northwest through Alabama. Covington County received minor damage from high winds and flooding rains.
- *April through November 2006*: Covington County experienced a widespread drought up to D3 (Extreme) conditions that caused loss of agricultural production.
- *May 2007 through January 2008*: Covington County experienced D3 (Extreme) and D4 (Exceptional) drought conditions that caused loss of agricultural production.

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- *March/April 2009:* Flooding and severe storms caused over \$4,000,000 of damage to mostly roads and bridges throughout the County, but concentrated in southern and eastern sections.

City of Andalusia Events

Note: The data is in different formats depending on the data that was provided by the City of Andalusia and the data collected from newspaper and internet resources.

Hurricane/Coastal Storm Occurrence

Name	Date	Type	Magnitude	Deaths	Injuries	Damages
Eloise	Sept. 1975	Hurricane	N/A	0	0	N/A
Frederic	Sept. 1979	Hurricane	N/A	0	0	N/A
Erin	Aug. 1995	Hurricane	N/A	0	0	N/A
Opal	Oct. 1995	Hurricane	N/A	0	0	\$2,333,878
Georges	Sept. 1998	Hurricane	N/A	0	0	\$502,481

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Andalusia (also in County)	03/05/1919	01:00 PM	F2	0	N/A	N/A
Andalusia	01/05/1962	04:30 PM	N/A	0	0	\$2,500
Andalusia	10/04/1995	12:45 PM	F0	0	0	\$10,000
Andalusia (also in County)	03/13/1999	08:30 PM	F1	0	0	\$100,000

Severe Storm Occurrence

Locations	Date	Damage
SW Andalusia (Hail)	05/25/1956	N/A
SW Andalusia (Hail and Wind)	06/11/1968	N/A
SW Andalusia (Thunderstorm/Wind)	06/25/1972	N/A
NW Andalusia (Thunderstorm/Wind)	12/26/1973	N/A
Downtown Andalusia (Thunderstorm/Wind)	04/03/1984	N/A
Andalusia (Hail)	05/08/1985	N/A
Andalusia (Hail and Wind)	06/09/1985	N/A
W Andalusia (Thunderstorm/Wind)	08/02/1986	N/A
Andalusia (Thunderstorm/Wind)	07/01/1987	N/A
Andalusia (Thunderstorm/Wind)	06/26/1988	N/A
Andalusia (Hail)	04/28/1990	N/A
Andalusia (Thunderstorm/Wind)	12/03/1990	N/A
Andalusia (Thunderstorm/Wind)	07/14/1991	N/A
Andalusia (Hail)	05/24/1996	N/A
Andalusia (Hail)	11/01/1997	N/A
Andalusia (Lightning and Hail)	03/08/1998	\$1,000
Andalusia (Hail)	04/17/1998	N/A
Andalusia (Hail)	05/03/1998	N/A
US 84/US 29 intersection	01/02/1999	\$2,000
Southern areas	02/27/1999	\$5,000
Greene Acres, Snowden Drive	June 1999	N/A
Greens Acres, Church St, Linda St	June 1999	N/A
Bellwood, Lapine Ln, Linda St	July 1999	N/A
Country Club, Albritton Rd, Fletcher Rd	July 1999	N/A
29 North, Rankin, Riley	July 1999	N/A
W Bypass, S Three Notch	July 1999	N/A
Throughout Andalusia	August 1999	N/A

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Throughout Andalusia	August 1999	N/A
Dunson St, Clearview	August 1999	N/A
S Three Notch, Country Club, Bellwood	March 2000	N/A
West and South side of Andalusia	June 2000	N/A
Sanford Rd, Fairway Circle	July 2000	N/A
Woodrow St, Packer St	July 2000	N/A
River Falls St, Stewart St	July 2000	N/A
Lindsey Bridge Rd	August 2000	N/A
Bellwood, Highland Ave	August 2000	N/A
South Three Notch, Moore Rd, Bellwood	August 2000	N/A
Sanford Rd, Courtney St	November 2000	N/A
Simmons St	March 2001	N/A
Cawthon St, Lowe Ave	March 2001	N/A
Hwy 84 East	March 2001	N/A
Throughout Andalusia	May 2001	\$5,000
North side of Andalusia	June 2001	N/A
Packer Ave	June 2001	N/A
Whatley St	June 2001	N/A
Woodlawn St, Moore Rd, Allen Ave	July 2001	N/A
Moore Rd	July 2001	N/A
South Bypass	July 2001	N/A
West side of Andalusia	August 2001	N/A
Snowden Dr, W Watson St	July 2002	N/A
Stanley St	July 2002	N/A
Sanford Rd	August 2002	N/A
Pinewood Rd	August 2002	N/A
Powhattan St, 3 rd St, 4 th St	September 2002	N/A
Andalusia (Lightning)	04/07/2003	\$15,000
Andalusia (Lightning)	05/17/2004	\$15,000
Andalusia (Lightning)	06/06/2004	\$5,000
Andalusia (Hail)	01/30/2006	N/A
Andalusia (Wind)	05/08/2006	\$12,000
Andalusia (Wind)	08/03/2006	\$10,000
NE Andalusia (Thunderstorm/Wind)	06/09/2007	\$10,000
Andalusia (Thunderstorm/Wind)	06/26/2007	\$100,000
Andalusia (Hail)	06/25/2008	N/A
Andalusia (Wind)	03/27/2009	\$35,000

Note: City of Andalusia provided storms that produced power outages or damage between 1999 and 2003

Flood Occurrence

Location	Date	Damage
Flood	March 1998	\$1,500,000

Winter Storm Occurrence

Location	Event	Date
Throughout Andalusia	Snow	March 1973
Throughout Andalusia	Ice	March 1982
Throughout Andalusia	Ice	December 1982
Sanford Rd	Extreme Cold	December 1999
Lenora Ln	Extreme Cold	January 2000
Baisden St, Oak St, Opp Ave, Sanford Rd	Extreme Cold	December 2000
Hwy 84 East	Extreme Cold	January 2001
Chickasaw St	Extreme Cold	January 2002

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Town of Babbie Events

Severe Storm Occurrence

Date	Type of Storm	Damages
03/13/1999	Thunderstorm/Wind	\$5,000
03/14/2003	Hail	N/A

Town of Carolina Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Carolina	10/20/2002	05:50 PM	F0	0	0	\$20,000

City of Florala Events

Hurricane/Coastal Storm Occurrence

Name	Date	Type	Magnitude	Deaths	Injuries	Damages
Eloise	Sept. 1975	Hurricane	N/A	0	0	\$500,000
Opal	Oct. 1995	Hurricane	N/A	0	0	\$500,000
Georges	Sept. 1998	Hurricane	N/A	0	0	\$190,000

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Florala	10/18/1916	02:30 PM	F2	1	0	N/A
Florala (also in Lockhart)	03/13/1975	10:52 PM	F1	0	0	\$25,000
Florala	06/13/1984	03:15 PM	F1	0	0	\$25,000
Florala	10/28/1985	11:00 AM	F1	0	0	\$25,000

Severe Storm Occurrence

Date	Type of Storm	Damages
02/01/1983	Thunderstorm/Wind	N/A
07/26/1987	Thunderstorm/Wind	N/A
07/10/1990	Thunderstorm/Wind	N/A
07/24/1991	Thunderstorm/Wind	N/A
03/30/1992	Hail	N/A
04/20/1992	Thunderstorm/Wind	N/A
03/31/1993	Thunderstorm/Wind	N/A
05/26/1999	Thunderstorm/Wind	\$3,000
06/05/1999	Thunderstorm/Wind	\$10,000
03/03/2001	Thunderstorm/Wind	\$20,000
08/19/2001	Thunderstorm/Wind	\$8,000
03/12/2002	Hail	N/A
07/20/2002	Hail	N/A
05/02/2003	Hail	N/A
05/17/2004	Hail	N/A
07/07/2004	Lightning	N/A (1 fatality)
03/01/2007	Thunderstorm/Wind	\$15,000
03/28/2009	Thunderstorm/Wind	\$30,000
03/28/2009	Thunderstorm/Wind	\$12,000

Town of Gantt Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Gantt (also in County / Red Level)	05/20/1980	01:15 AM	N/A	0	0	N/A
Gantt (also County / River Falls)	12/28/1983	04:40 AM	F2	0	1	\$250,000

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Severe Storm Occurrence

Date	Type of Storm	Damages
08/01/1984	Thunderstorm/Wind	N/A
04/01/1990	Thunderstorm/Wind	N/A
07/23/1991	Thunderstorm/Wind	N/A
07/08/2000	Thunderstorm/Wind	\$7,000
05/02/2003	Hail	N/A
04/08/2004	Hail	N/A
02/17/2008	Thunderstorm/Wind	\$12,000

Town of Heath Events

The Town of Heath did not have any individually-listed severe weather events.

Town of Horn Hill Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries
Horn Hill (also in County)	03/03/1999	02:15 AM	F0	0	0

Town of Libertyville Events

Hurricane/Coastal Storm Occurrence

Name	Date	Type	Magnitude	Deaths	Injuries	Damages
Opal	10/04/1995	Hurricane	N/A	0	0	\$35,000 (estimate)

Severe Storm Occurrence

Date	Type of Storm	Damages
08/19/1997	Thunderstorm/Wind	\$5,000
03/09/2003	Hail	N/A
04/06/2005	Hail	\$3,000

Town of Lockhart Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Lockhart (also in Florala)	03/13/1975	10:52 PM	F1	0	0	\$25,000

Severe Storm Occurrence

Date	Type of Storm	Damages
07/06/1984	Thunderstorm/Wind	N/A
04/28/1997	Thunderstorm/Wind	\$5,000
03/09/2003	Hail	N/A

Town of Onycha Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries
Onycha	01/17/1994	12:30 PM	F0	0	0

City of Opp Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Opp	09/15/1984	03:15 PM	F1	0	0	\$25,000
Opp	10/28/1985	N/A	N/A	0	0	\$3,000
Opp	02/22/1990	05:51 AM	F1	0	10	\$5,000
Opp	01/01/1994	N/A	N/A	0	0	\$2,000

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Opp	05/09/1995	01:30 PM	F0	0	0	\$2,000
Opp	10/04/1995	N/A	N/A	0	2	\$200,000
Opp	04/17/1998	04:15 PM	F1	0	0	\$1,000,000

Hurricane/Coastal Storm Occurrence

Name	Date	Type	Magnitude	Deaths	Injuries	Damages
Eloise	Sept. 1975	Hurricane	N/A	0	0	\$10,000
Frederic	Sept. 1979	Hurricane	N/A	0	0	\$20,000
Alberto	July 1994	Tropical Storm	N/A	0	0	\$200,000
Dean	07/28/1995	Tropical Storm	N/A	0	0	N/A
Erin	07/31/1995	Hurricane	N/A	0	0	\$5,000
Opal	10/04/1995	Hurricane	N/A	0	0	\$2,000,000
Danny	07/21/1997	Hurricane	N/A	0	0	\$5,000
Georges	09/15/1998	Hurricane	N/A	0	0	\$20,000
Helene	09/22/2000	Tropical Storm	N/A	0	0	N/A
Hanna	09/15/2002	Tropical Storm	N/A	0	0	N/A

Severe Storm Occurrence

Date	Type of Storm	Damages
09/16/1977	Thunderstorm/Wind	N/A
04/13/1979	Thunderstorm/Wind	N/A
07/05/1981	Thunderstorm/Wind	N/A
02/16/1982	Thunderstorm/Wind	N/A
02/01/1983	Thunderstorm/Wind	N/A
05/03/1984	Thunderstorm/Wind	N/A
05/22/1985	Thunderstorm/Wind	N/A
11/26/1986	Thunderstorm/Wind	N/A
06/04/1987	Thunderstorm/Wind	N/A
08/01/1987	Hail	N/A
02/10/1990	Thunderstorm/Wind	N/A
02/16/1990	Thunderstorm/Wind	N/A
08/20/1990	Hail	N/A
12/03/1990	Thunderstorm/Wind	N/A
05/03/1993	Thunderstorm/Wind	N/A
04/29/1996	Thunderstorm/Wind	\$1,500
07/06/1997	Wind	\$2,000
01/07/1998	Wind	\$3,500
04/08/1998	Hail	N/A
09/28/1998	Wind	\$5,000
05/18/1999	Thunderstorm/Wind	\$5,000
08/22/1999	Thunderstorm/Wind	\$2,000
05/13/2000	Thunderstorm/Wind	\$8,000
07/21/2000	Thunderstorm/Wind	\$10,000
03/12/2001	Thunderstorm/Wind	\$20,000
12/24/2002	Wind	\$10,000
05/31/2004	Hail	N/A
07/15/2004	Wind	\$8,000
05/20/2005	Hail	N/A
05/08/2006	Wind	\$12,000
06/06/2007	Hail	N/A
06/12/2007	Hail	N/A
07/14/2007	Thunderstorm/Wind	\$10,000
02/17/2008	Hail	N/A

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06/30/2008	Lightning	\$25,000
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Town of Red Level Events **Hurricane/Coastal Storm Occurrence**

Name	Date	Type	Magnitude	Deaths	Injuries	Damages
Opal	10/04/1995	Hurricane	N/A	0	0	\$11,260
Barry	08/06/01	Tropical Storm	N/A	0	0	\$3,000

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
Red Level	07/11/1979	06:10 PM	F2	0	4	\$300
Red Level (also in County / Gantt)	05/20/1980	01:15 AM	F1	0	0	\$25,000
Red Level (also in County)	03/12/2001	01:00 PM	F1	2	1	\$1,000,000

Severe Storm Occurrence

Date	Type of Storm	Damages
03/24/1984	Hail	N/A
04/15/1985	Thunderstorm/Wind	N/A
11/26/1986	Thunderstorm/Wind	N/A
02/10/1990	Hail	N/A
04/10/1990	Thunderstorm/Wind	N/A
07/18/1995	Thunderstorm/Wind	\$5,000
02/19/1996	Thunderstorm/Wind	\$60,000
02/22/1998	Lightning	\$2,000
04/08/1998	Hail	N/A
06/20/1998	Hail	N/A
08/20/1999	Hail	N/A
03/12/2002	Hail	N/A
07/04/2002	Lightning	\$20,000
03/13/2003	Hail	N/A
05/11/2003	Hail	N/A
01/01/2006	Hail	N/A
04/14/2007	Thunderstorm/Wind	\$10,000
06/12/2007	Thunderstorm/Wind	\$8,000

Flood Occurrence

Date	Type	Damages
10/04/1995	Flash Flood (Hurricane Opal)	\$11,260
October 1998	Flooding from Hurricane Georges	\$9,700
08/06/2001	Flooding from Tropical Storm Barry	\$3,000

Winter Storm Occurrence

Date	Event	Damages
01/02/2002	Snow	N/A
03/13/2003	Ice	\$2,000

Land Subsidence Occurrence

Date	Location	Damages
Crystal Springs Rd	08/25/2003	Ruptured water lines; damaged fencing

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Town of River Falls Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
River Falls (also County / Gantt)	12/28/1983	04:40 AM	F2	0	1	\$250,000
River Falls	11/24/2001	07:28 PM	F0	0	0	\$15,000

Severe Storm Occurrence

Date	Type of Storm	Damages
Various in 1990	Severe Thunderstorms	N/A
Various in 1994	Severe Thunderstorms	\$28,000
05/24/1997	Thunderstorm/Wind	\$1,000
Various in 1998 (1 death)	Severe Thunderstorms	\$30,000
01/07/1998	Thunderstorm/Wind	\$3,000
05/03/1998	Thunderstorm/Wind	\$10,000
07/25/1999	Thunderstorm/Wind	\$4,000
08/18/2000	Thunderstorm/Wind	\$13,000
05/27/2001	Thunderstorm/Wind	\$5,000
07/20/2001	Hail	N/A
07/12/2008	Thunderstorm/Wind	\$20,000

Flood Occurrence

Date	Type	Damages
1929	Dam Failures on Conecuh River	Destroyed entire town
1990	River Flood	\$28,000
1994	River Flood	N/A
1998	River Flood (1 death)	\$30,000

Town of Sanford Events

Severe Storm Occurrence

Date	Type of Storm	Damages
04/22/1984	Thunderstorm/Wind	N/A
02/16/1990	Thunderstorm/Wind	N/A
05/21/1990	Hail	N/A

Unincorporated Covington County Events

Tornado Occurrence

Location	Date	Time	Magnitude	Deaths	Injuries	Damages
4 miles S of Red Level	04/30/1908	01:00 AM	F2	0	1	N/A
From near Andalusia to Crenshaw County	03/05/1919	01:00 PM	F2	0	N/A	N/A
3 miles SW of Red Level	02/19/1949	09:00 AM	F2	0	5	N/A
3 miles NE of South community	05/03/1956	04:40 AM	F3	0	2	\$25,000
1 mile SW of Brooks community to Butler County	06/28/1957	11:00 AM	F2	0	N/A	\$250,000
Conecuh National Forest	12/24/1964	11:30 PM	F0	0	0	\$25,000
Smyrna community	11/11/1974	02:00 PM	F1	0	0	\$2,500
Straughn / Antioch communities	03/31/1976	09:30 AM	F2	0	0	\$250,000
Blue Spring community	05/03/1978	12:15 PM	F1	0	0	\$25,000
Northern sections of County	05/20/1980	01:15 AM	F1	0	0	\$25,000
Near Opp to Coffee County	05/20/1980	02:15 AM	N/A	0	0	N/A
3 miles S of Loango community (also River Falls / Gantt)	12/28/1983	04:40 AM	F2	0	1	\$250,000
4 miles WNW of Opp	05/09/1995	01:30 PM	F0	0	0	\$25,000
US 29 near Carolina	10/04/1995	05:30 PM	F0	0	0	\$10,000

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US 29 near Gantt Lake	10/04/1995	07:10 PM	F0	0	0	\$10,000
Beulah community	11/21/1997	10:45 PM	F1	0	0	\$250,000
Near Heath	04/08/1998	09:20 AM	F1	0	0	\$30,000
County Road 77 near Opp	09/28/1998	07:05 AM	F0	0	0	\$5,000
Near Antioch community	09/28/1998	07:45 AM	F0	0	0	\$25,000
Between Horn Hill and Onycha	03/03/1999	02:15 AM	F0	0	0	\$60,000
County Road 70 NE of Andalusia	03/13/1999	08:30 PM	F1	0	0	\$100,000
Pigeon Creek (also Red Level)	03/12/2001	01:00 PM	F1	2	1	\$1,000,000
Stanley community (near Libertyville)	06/11/2001	05:05 PM	F0	0	0	\$15,000
Rose Hill community	11/24/2001	08:30 PM	F0	0	0	\$15,000
Straughn community	05/31/2005	05:10 PM	F0	0	0	\$40,000
5 miles W of Opp	05/31/2005	06:05 PM	F0	0	0	\$5,000
Watkins Bridge community	07/06/2005	09:45 AM	F0	0	0	\$15,000
W of Lockhart	07/06/2005	09:57 AM	F0	0	0	\$15,000
Near Horn Hill/Opine/Friendship	11/15/2006	11:30 AM	F2	0	0	\$1,000,000
W of Pleasant Home to Fairfield	02/17/2008	01:25 PM	EF2	0	0	\$250,000
W of Red Level	05/15/2008	11:17 AM	EF0	0	0	\$150,000
SW of Red Oak to S of Libertyville	10/08/2008	09:25 AM	EF0	0	0	\$50,000

Severe Storm Occurrence

Location	Type	Date	Damage
NW County	Thunderstorm/Wind	04/12/1962	N/A
Near Antioch community	Hail	06/09/1965	N/A
Near Straughn community	Thunderstorm/Wind	05/08/1967	N/A
W of Lockhart	Thunderstorm/Wind	05/29/1973	N/A
N of River Falls	Thunderstorm/Wind	07/05/1973	N/A
N of Sanford	Thunderstorm/Wind	06/30/1976	N/A
N of Sanford	Thunderstorm/Wind	07/07/1976	N/A
Beulah community	Thunderstorm/Wind	04/12/1980	N/A
S of Babbie	Thunderstorm/Wind	05/19/1983	N/A
S of Andalusia	Thunderstorm/Wind	07/26/1983	N/A
Gantt Lake area	Thunderstorm/Wind	03/21/1985	N/A
Red Oak community	Thunderstorm/Wind	03/21/1985	N/A
N of Gantt	Hail	04/15/1985	N/A
S of Libertyville	Hail	05/08/1985	N/A
South Central County	Hail	05/08/1985	N/A
W of Carolina	Thunderstorm/Wind	12/31/1985	N/A
Northern County	Thunderstorm/Wind	08/02/1986	N/A
Brooks community	Thunderstorm/Wind	08/02/1986	N/A
Rose Hill community	Thunderstorm/Wind	03/26/1988	N/A
S of Gantt	Thunderstorm/Wind	04/06/1990	N/A
Loango community	Hail	05/21/1990	N/A
N of Florala	Hail	05/21/1990	N/A
N of Sanford	Thunderstorm/Wind	08/19/1990	N/A
Brooks community	Hail	03/30/1992	N/A
SE of Carolina	Thunderstorm/Wind	04/20/1992	N/A
Countywide	Thunderstorm/Wind	04/15/1994	\$50,000
Beulah community	Thunderstorm/Wind	06/12/1994	\$5,000
Near Opp	Lightning	07/25/1994	\$50,000
SW of Andalusia	Thunderstorm/Wind	05/10/1995	\$3,000
Countywide	Hail	05/11/1995	N/A
10 miles NW of Florala	Thunderstorm/Wind	10/03/1995	\$10,000
Near Beda community	Thunderstorm/Wind	10/04/1995	\$5,000
Huckaville community	Thunderstorm/Wind	04/22/1997	\$2,000

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Rose Hill community	Thunderstorm/Wind	04/22/1997	\$1,500
NE of Opp	Thunderstorm/Wind	07/06/1997	\$2,000
Pleasant Home community	Thunderstorm/Wind	11/21/1997	\$20,000
E of Andalusia	Thunderstorm/Wind	01/07/1998	\$3,000
Near Fairfield community	Thunderstorm/Wind	01/22/1998	\$3,000
Near Lockhart	Thunderstorm/Wind	03/08/1998	\$3,000
Near Gantt Lake	Hail/Wind	04/08/1998	\$3,000
Between Andalusia and River Falls	Thunderstorm/Wind	06/06/1998	\$5,000
County Road 61 N of Gantt	Thunderstorm/Wind	06/19/1998	\$3,000
South of Andalusia	Thunderstorm/Wind	09/28/1998	\$5,000
Green Bay community	Thunderstorm/Wind	09/28/1998	\$3,000
Near Opp	Thunderstorm/Wind	09/28/1998	\$5,000
Near Libertyville	Thunderstorm/Wind	01/02/1999	\$5,000
Rose Hill community	Lightning	01/23/1999	\$5,000
Wing community	Hail	04/29/1999	N/A
E of Andalusia	Hail	05/13/1999	N/A
Near Opp	Thunderstorm/Wind	05/18/1999	\$5,000
Wing community	Hail	05/23/1999	N/A
Rose Hill community	Thunderstorm/Wind	07/18/1999	\$4,000
Between Red Level and Loango community	Hail	08/20/1999	N/A
Near Opp	Thunderstorm/Wind	08/22/1999	\$2,000
N of Heath	Hail	02/13/2000	N/A
Near Florala	Thunderstorm/Wind	04/03/2000	\$5,000
Near Carolina	Hail	05/13/2000	N/A
S of Andalusia	Hail/Wind	05/13/2000	\$5,000
Near Opp	Thunderstorm/Wind	05/13/2000	\$8,000
S of Andalusia	Hail	07/20/2000	N/A
S of Red Level	Thunderstorm/Wind	07/20/2000	\$5,000
Near Opp, Andalusia, and Heath	Thunderstorm/Wind	07/21/2000	\$10,000
Clearview community	Hail	08/09/2000	N/A
S of Andalusia	Thunderstorm/Wind	08/20/2000	\$8,000
Near Gantt	Hail	12/16/2000	N/A
5 miles E of Wing community	Thunderstorm/Wind	12/16/2000	\$20,000
NE of Gantt	Thunderstorm/Wind	03/12/2001	\$200,000
E of Opp	Thunderstorm/Wind	03/12/2001	\$20,000
Wing community	Thunderstorm/Wind	05/19/2001	\$3,000
S of Onycha	Thunderstorm/Wind	05/27/2001	\$5,000
Near Carolina	Thunderstorm/Wind	10/13/2001	\$10,000
Near Opp	Hail	10/13/2001	N/A
Near Red Level	Hail	03/12/2002	N/A
Near Andalusia	Thunderstorm/Wind	03/12/2002	\$10,000
N of Sanford	Hail	03/31/2002	N/A
Between Andalusia and River Falls	Thunderstorm/Wind	06/05/2002	\$10,000
S of Andalusia	Wind/Hail	06/19/2002	\$8,000
Near Andalusia	Thunderstorm/Wind	07/20/2002	\$10,000
S of Andalusia	Wind/Hail	07/20/2002	\$8,000
W of Carolina	Thunderstorm/Wind	07/23/2002	\$8,000
Near Opp	Thunderstorm/Wind	12/24/2002	\$10,000
W of Libertyville	Hail	03/13/2003	N/A

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Rose Hill community	Hail	04/05/2003	N/A
Near Pleasant Home community	Thunderstorm/Wind	04/07/2003	\$5,000
N of Wing community	Thunderstorm/Wind	07/01/2003	\$5,000
NE of Andalusia	Thunderstorm/Wind	07/16/2003	\$5,000
South community	Hail	04/08/2004	N/A
Rose Hill community	Hail	07/15/2004	N/A
Red Oak community	Hail	03/26/2005	\$3,000
Between Andalusia and Opp	Hail	03/26/2005	\$15,000
Green Bay community	Hail	01/31/2008	N/A
Wing community	Lightning	06/21/2008	\$20,000
Near Pleasant Home	Thunderstorm/Wind	10/08/2008	\$10,000
Green Bay community	Thunderstorm/Wind	03/26/2009	\$50,000
Red Oak community	Thunderstorm/Wind	03/28/2009	\$12,000

Flood Occurrence

Location	Type	Date	Damage
Countywide	Flash Flood	07/06/1994	\$550,000
County Road 86	Flash Flood	10/03/1995	\$5,000
Countywide *Declared*	Flood	03/08/1998	\$6,000,000
Countywide *Declared*	Flood	09/28/1998	N/A
Northern areas in County	Flash Flood	05/06/1999	\$5,000
Southern areas in County	Flash Flood	05/07/1999	\$5,000
Between Red Level and River Falls	Flash Flood	07/25/1999	\$1,000
Countywide	Flash Flood	03/03/2001	\$10,000
NW areas in County *Declared*	Flash Flood	07/10/2005	N/A
S and E areas in County *Declared*	Flash Flood	03/25/09 – 04/03/09	~\$4,000,000

Severe Winter Weather

Location	Type	Date	Damage
Countywide	Snowstorm	April 1993	N/A
Countywide	Sleet	01/27/2000	N/A
Countywide	Winter Storm	01/02/2002	N/A

Drought/Extreme Heat

Location	Type	Date	Damage
Countywide	Extreme Heat	July 2000	N/A
Countywide	Extreme Heat	August 2007	N/A

4.6 Probability of Future Occurrence

Table 4.6.1 estimates hazard event frequency of occurrence cumulatively for Covington County. These estimates were calculated from events recorded since 1990 or 2000, reflected in Table 4.4.1, as more comprehensive data has been collected during this period as compared to earlier instances. There is no guarantee the recent level of hazard events will continue into the future at the same rate, as high wind events have especially been recorded more comprehensively in the past twenty (20) years. However, the figures below will provide at least a possible estimation of potential damages.

The time scales for each recorded hazard is listed below (when known and/or applicable):

Dam Failure: N/A (no recordings in over 70 years)

Drought: 2000 through 2009

Extreme Heat: N/A (not enough data/subjective data due to few recording sites in County)

Flooding: 1990 through 2009

High Winds: 1990 through 2009

Lightning: 2000 through 2009

Wildfire: 1999 through 2008

Formulas used in the tables are defined as follows (Note: Values for injuries [\$12,500] and deaths [\$2,200,000] are taken from FEMA guidance for cost/benefit calculations):

Probability (Annual) = Occurrences / Time

Estimated Future Damage (Annual) = Damages Recorded / Time

Table 4.6.1 Probability of Future Occurrence Based on Recent Data – Covington County (Cumulative)

Hazard	Occurrences	Time (Years)	Damages Recorded	Probability (Annual)	Estimated Future Damage (Annual)
Dam Failure	0	N/A	N/A	N/A	N/A
Drought	2	10	N/A	20.00%	N/A
Extreme Heat	N/A	N/A	N/A	N/A	N/A
Flooding	10	20	\$12,834,000	50.00%	\$641,700
High Winds	176	20	\$59,449,500	9 events per year	\$3,000,000
Lightning	7	10	\$2,300,000	70.00%	\$230,000
Wildfire	455	10	N/A	46 events per year	N/A

4.7 Vulnerability Overview

Dam Failure

There are an estimated 205 structures (182 residential) located within the inundation zone that would impact approximately 800 people in Gantt, River Falls, and unincorporated Covington County during a “Sunny Day Breach”. The damages resulting from this type of dam failure would damage the residences and businesses within the inundation zone and would affect isolated agricultural operations along the Conecuh River.

Drought

Drought can affect all 36,856 residents of Covington County through depletion of groundwater resources that contribute to drinking water for the entire county. Agricultural production would be impacted depending on the extent and severity of the drought. The entire county would also be more susceptible to wildfire events during a period of drought.

Extreme Heat

Extreme heat can affect all 36,856 residents of Covington County, but residents that are very young or very advanced in age are more susceptible to health effects. The effects of prolonged durations of extreme heat may often coincide with and exacerbate drought conditions. Extreme heat may stress electrical utility providers, due to increased air conditioning requirements. Need for health providers may also increase due to extreme heat.

Flooding

The primary areas affected by riverine flooding in Covington County are along Gantt and Point “A” lakes on the Conecuh River, Patsaliga Creek, and Yellow River. Other areas inside the floodplains are streams and creeks throughout the county. The NFIP has identified flood zones in areas of the jurisdictions of unincorporated Covington County, Andalusia, Babbie, Carolina, Florala, Gantt, Opp, Red Level, and River Falls. Areas within NFIP-identified flood zones may have property damage and potential casualties during flooding situations. There are six (6) Repetitive Loss Structures in the County. Most of the structures in the floodplain are along the Conecuh River and many are seasonal or temporary housing.

Flash flooding may potentially affect all 36,856 residents of the County and cause runoff that becomes fast-rising waters that can cause property and street damage as well as casualties. Unlike riverine flooding, which can be forecasted over a few days, flash flooding is normally a quick onset hazard with little warning.

Riverine and flash flooding may occur any time of year, though flooding associated with heavy rains during hurricanes will occur in summer and early autumn.

High Winds

All of Covington County’s 36,856 residents are susceptible to high wind events. These effects will include property damage to residences, businesses, and critical facilities. Utility service is normally interrupted causing loss of productivity and damage caused will create debris that may be dangerous.

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Hurricanes will provide widespread effects during the summer and early autumn portions of the year. Effects from hurricanes may include tornadoes and other severe storms. Normally there are a few days of warnings before a hurricane impacts Covington County allowing for preparations.

Tornadoes are other high wind events whose effects of tornadoes are similar, but possibly more destructive than hurricanes, but impacts are more localized. Even though favorable conditions for tornadoes can be forecasted in advance, the location of a tornado is unknown until a few moments before the storm occurs.

Other wind events, including straight-line winds will also produce similar effects to tornadoes and hurricanes. These effects will be more localized than hurricane events but more widespread than tornadoes.

Lightning

All of Covington County's 36,856 residents are vulnerable to lightning events that occur any time of the year, though instances are more numerous in spring and summer. Lightning effects are localized in nature. Though lightning occurrences are plentiful, major damage from lightning does not occur as much as damage from wind events that occur in thunderstorms. Covington County has seven (7) documented occurrences of property damage from lightning since 2000 and one (1) death in Florala. Lightning is very dangerous and may cause additional human casualties or fires that create property damage.

Wildfire

The effects caused by wildfires damage timber land in Covington County. If factors such as winds and drought are present, wildfires may spread from forested areas to areas with residential structures. Effects can exacerbate to cause property damage and even casualties. Though all of Covington County's 36,856 residents are at least somewhat vulnerable to wildfires, areas located in eastern Covington County, between Opp and Florala, are at a higher vulnerability according to the Alabama Forestry Commission. The municipalities of Covington County are regarded as having Medium to Low risk for wildfire occurrences.

4.8 Population Vulnerable to Hazards by Jurisdiction

Note: This section is utilizing 2008 population estimates where appropriate.

The estimated population vulnerable to natural disasters is dependent on the specific hazard types. Table 4.8.1 highlights affected population for different natural hazards.

Table 4.8.1 Population Affected by Hazards

Hazard	Unincorporated County	Andalusia	Babbie	Carolina	Florala	Gantt	Heath
Dam Failure	800	0	0	0	0	N/A	0
Drought	15,556	8,978	623	245	1,884	237	247
Extreme Heat	15,556	8,978	623	245	1,884	237	247

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Flooding*	850	30	0	0	0	40	0
High Winds	15,556	8,978	623	245	1,884	237	247
Lightning	15,556	8,978	623	245	1,884	237	247
Wildfire	15,556	8,978	623	245	1,884	237	247

Hazard	Horn Hill	Libertyville	Lockhart	Onycha	Opp	Red Level	River Falls	Sanford	Total
Dam Failure	0	0	0	0	0	0	N/A	0	800
Drought	233	104	539	207	6,582	548	605	268	36,856
Extreme Heat	233	104	539	207	6,582	548	605	268	36,856
Flooding*	0	0	0	0	30	0	50	0	1,000
High Winds	233	104	539	207	6,582	548	605	268	36,856
Lightning	233	104	539	207	6,582	548	605	268	36,856
Wildfire	233	104	539	207	6,582	548	605	268	36,856

* Note: Population affected by flooding reflects population vulnerable to riverine flooding. All Covington County residents are vulnerable to flash flooding.

4.9 Socially Vulnerable Populations

Note: Census information on tract level has not changed since the last version of the Plan. The next update should be able to access 2010 Census demographics for recent demographics.

Table 4.8.1 shows potential vulnerability to hazards due to physical location. There are additional factors to location that make a population vulnerable. Social and economic characteristics can affect vulnerability. Certain groups of people can be more negatively affected by natural hazards and the aftereffects. These populations can be defined in terms of social, racial, and economic characteristics. These assessments of socially vulnerable populations use some of the groups that the State of Alabama deems as vulnerable. The following section identifies Covington County's socially vulnerable populations by Census Tract.

NOTE: All of the following demographic information is from the 2000 Census.

Demographics by Census Tract

Covington County is broken into 14 census tracts. Census tracts normally have populations between 1,500 and 8,000, and are optimally around 4,000 people. During each decennial census, the Census Bureau will possibly change the tract boundaries due to population increase or decrease. Figure 4.9.1 displays the population in each census tract. It gives an idea of where large numbers of population are located.

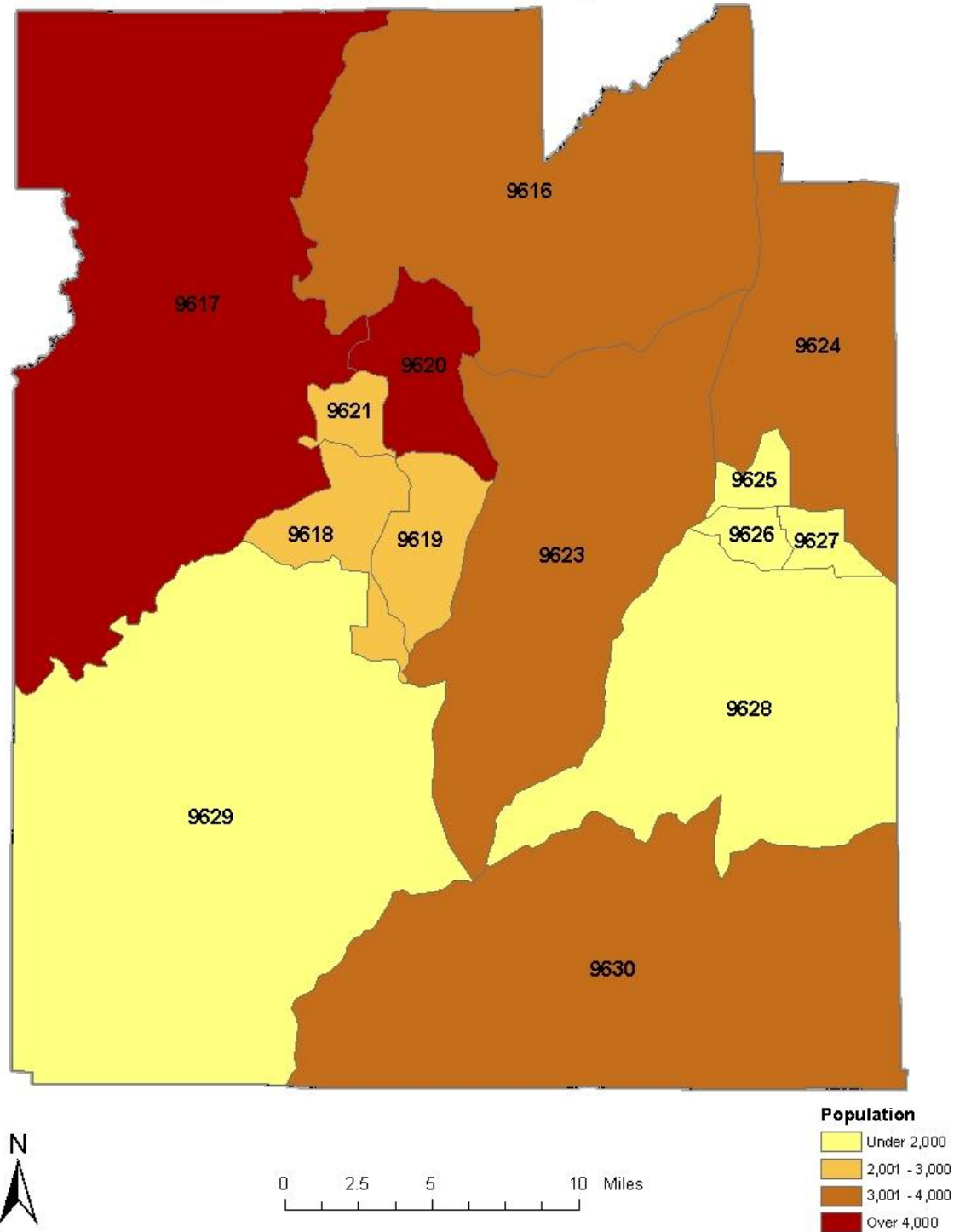
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Figure 4.9.1 Covington County Population by Census Tract

Tract	9616	9617	9618	9619	9620	9621	9623
Population	3,936	4,380	2,987	2,198	4,005	2,024	3,052

Tract	9624	9625	9626	9627	9628	9629	9630
Population	3,235	1,674	1,444	1,811	1,676	1,666	3,543

Covington County Population by Census Tract



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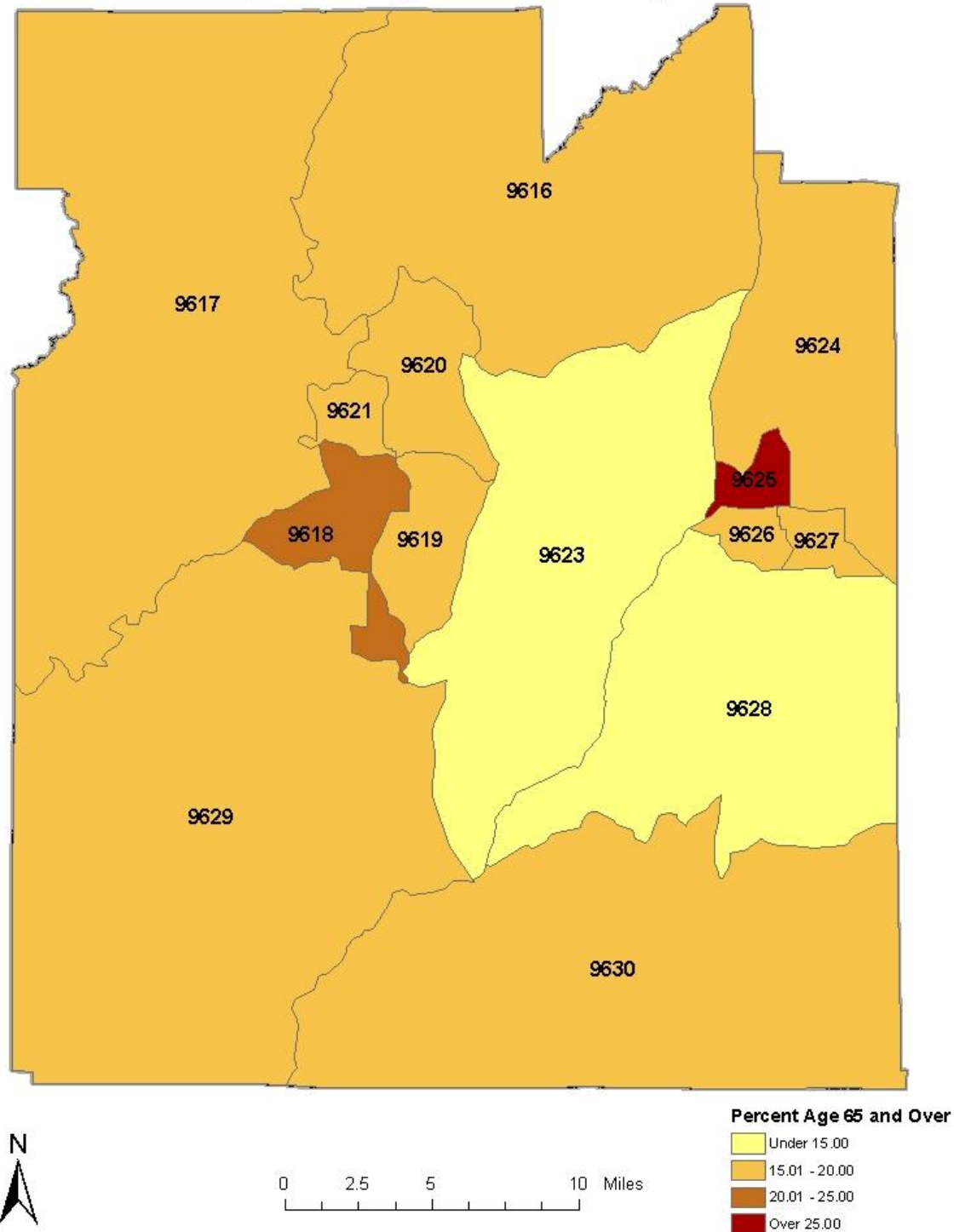
Age of the population is another factor in vulnerability to natural hazards. People who are elderly and who are dependent children are more vulnerable than other segments of the population. These population groups will have special needs during a disaster event. Figure 4.9.2 displays tract percentages of population age 65 and over. Tract 9625, of which areas in Opp are located, has the highest percentage of elderly population with 27.3%. Tract 9618, which encompasses portions of Andalusia, is the next highest with 23.74%. Every tract in Covington County has elderly populations that are over the state (13.0%) and national (12.4%) averages.

Figure 4.9.2 Covington County Population Age 65 and Over by Census Tract

Tract	9616	9617	9618	9619	9620	9621	9623
Population Over 65	677	667	709	347	751	366	449
Percent of Total Population	17.20	15.23	23.74	15.79	18.75	18.08	14.71

Tract	9624	9625	9626	9627	9628	9629	9630
Population Over 65	605	457	235	278	232	274	693
Percent of Total Population	18.70	27.30	16.27	15.35	13.84	16.45	19.56

Percent of Population Age 65 and Over by Census Tract



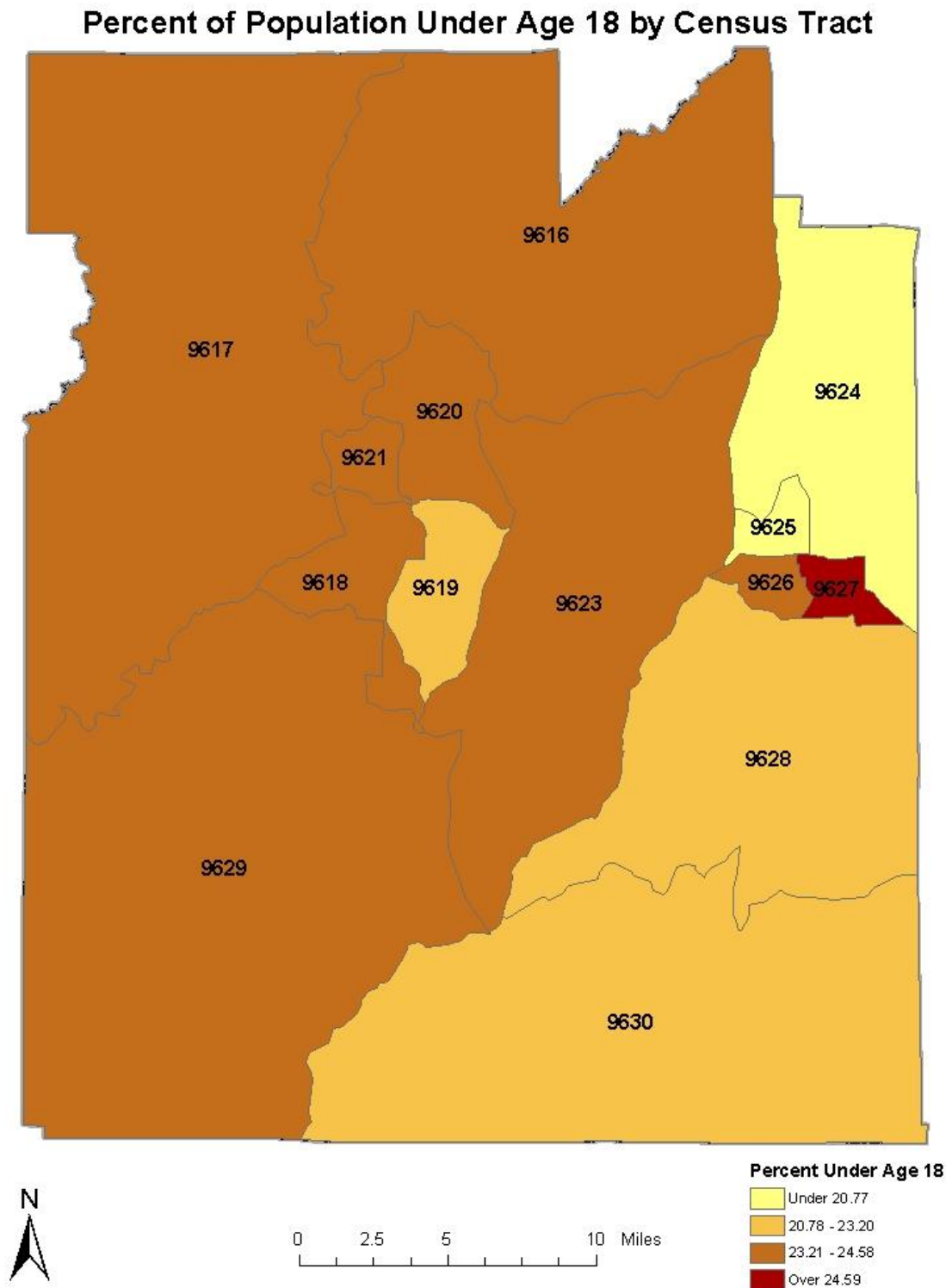
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Figure 4.9.3 displays tract percentages of population under the age of 18. The census tract with the highest number of children is Tract 9627 with 28.33 %, covering a portion of Opp. This is the only census tract in Covington County that has a higher percentage of children than the state (25.3%) and national (25.7%) average.

Figure 4.9.3 Covington County Population Age Under 18 by Census Tract

Tract	9616	9617	9618	9619	9620	9621	9623
Population Under 18	955	1,067	711	510	956	497	727
Percent of Total Population	24.26	24.36	23.80	23.20	23.87	24.56	23.82

Tract	9624	9625	9626	9627	9628	9629	9630
Population Under 18	672	338	355	513	385	395	779
Percent of Total Population	20.77	20.19	24.58	28.33	22.97	23.71	21.99



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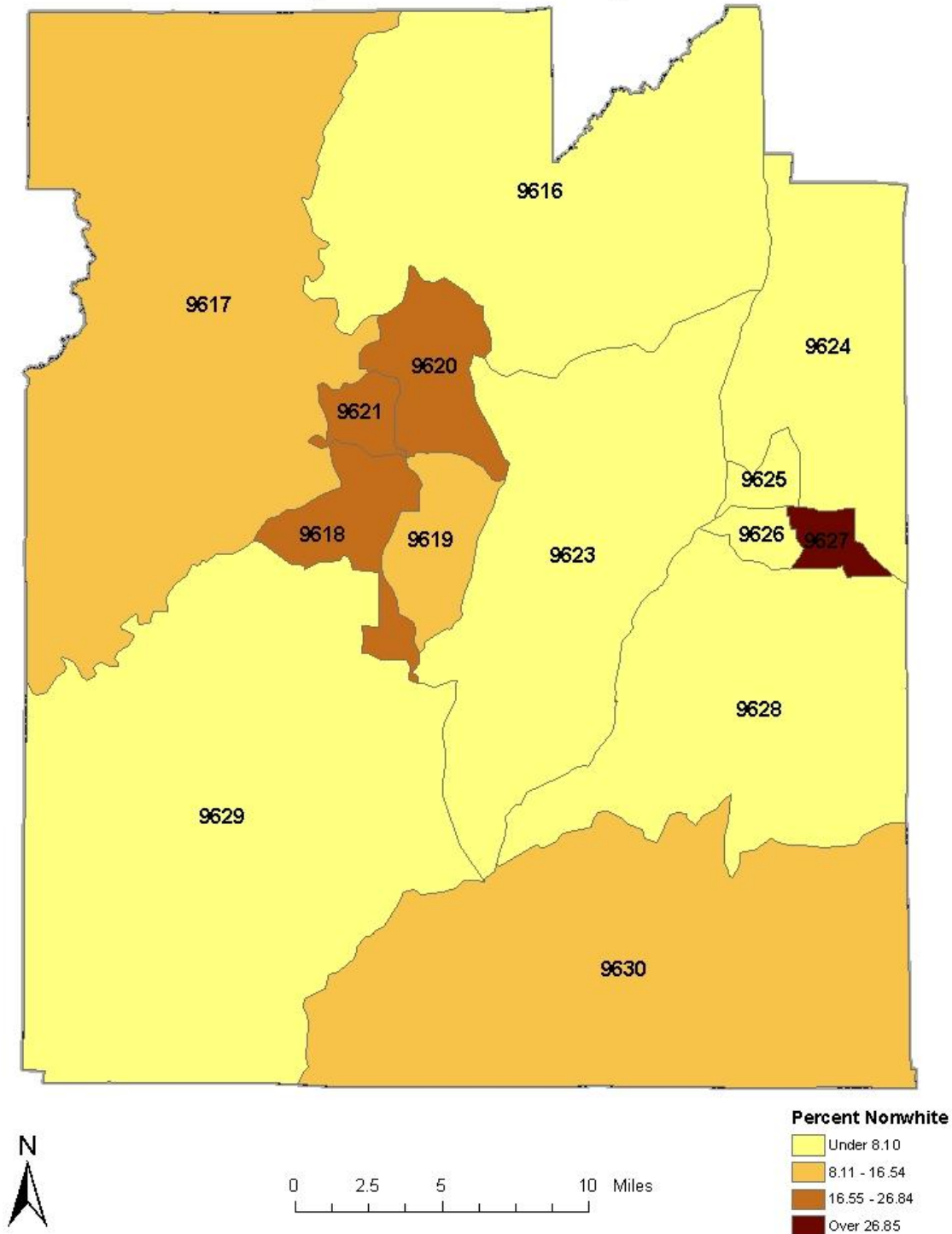
Minority populations are also considered to be vulnerable to natural hazards, generally due to a lesser rate of having medical insurance, unreliable transportation, shoddily constructed housing, and a lesser rate of property insurance. Figure 4.9.4 shows the percentage of nonwhite population by census tract. The highest nonwhite percentage is in Tract 9627, composing a section of Opp, at 47.65%. Other census tracts that have higher percentages of nonwhite population are Tracts 9620 (26.84%) and 9621 (25.00%), which are located in sections of the Andalusia area. All other census tracts in Covington County have a nonwhite population percentage of less than 20%.

Figure 4.9.4 Covington County Nonwhite Population by Census Tract

Tract	9616	9617	9618	9619	9620	9621	9623
Population Nonwhite	191	618	596	286	1,075	506	46
Percent of Total Population	4.85	14.11	19.95	13.01	26.84	25.00	1.51

Tract	9624	9625	9626	9627	9628	9629	9630
Population Nonwhite	160	56	117	863	40	55	586
Percent of Total Population	4.95	3.35	8.10	47.65	2.39	3.30	16.54

Percent of Population Nonwhite by Census Tract



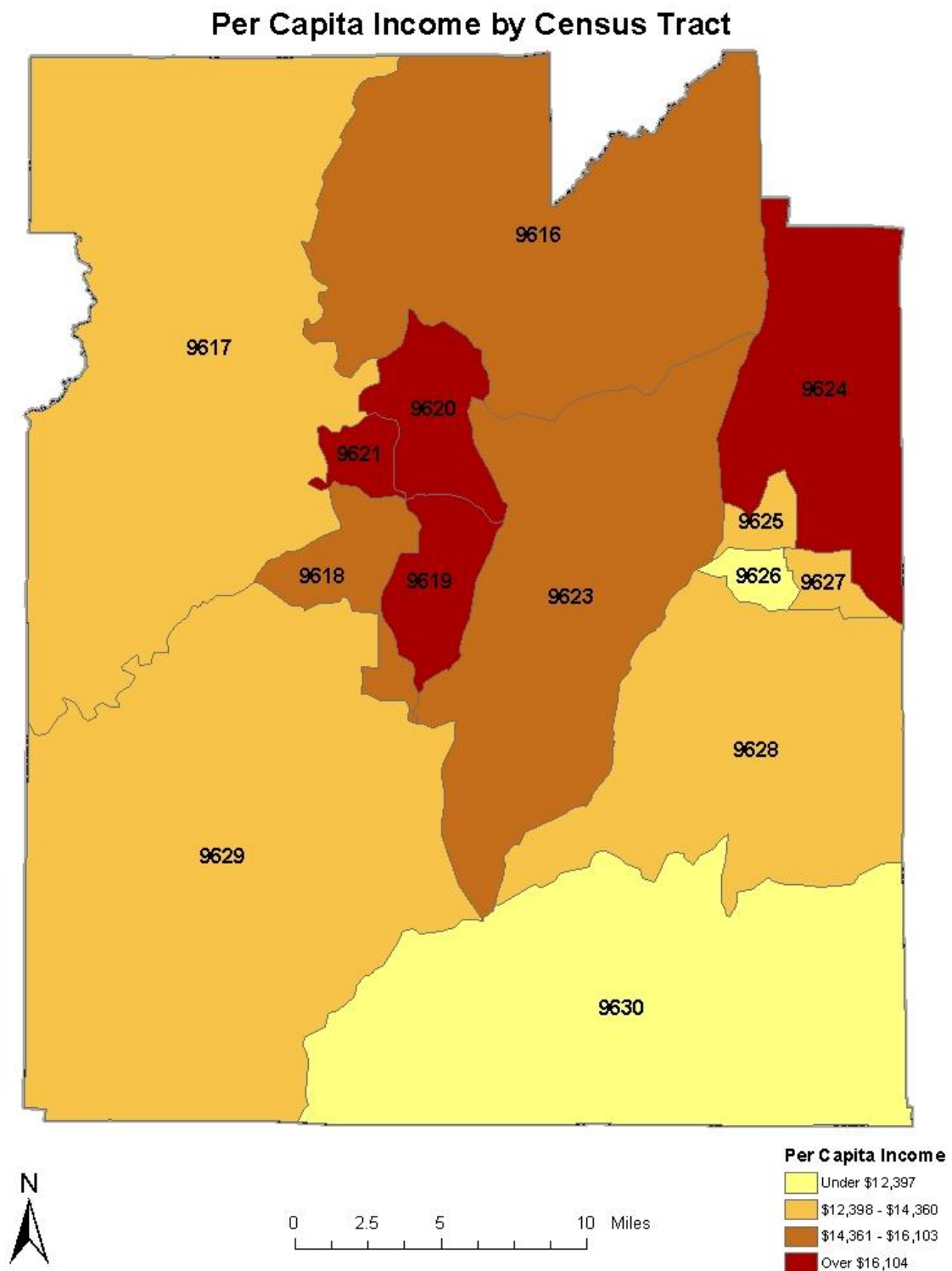
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Income levels identify those groups that possibly do not have the resources to recover from a natural disaster in an adequate fashion. Figure 4.9.5 shows the per capita income of Covington County in each census tract. Per capita income is calculated by dividing the aggregate income by the population in each census tract. Only one census tract in Covington County (Tract 9624) surpasses the state per capita income of \$18,189. Tract 9624 is in northeastern Covington County, and has a per capita income of \$19,192. The lowest per capita income in Covington County is Tract 9630, which encompass Floral and Lockhart, with \$11,862.

Figure 4.9.5 Covington County Per Capita Income by Census Tract

Tract	9616	9617	9618	9619	9620	9621	9623
Per Capita Income (\$)	15,569	13,545	15,647	17,568	17,498	17,689	16,103
Percent of State	85.60	74.47	86.03	96.59	96.20	97.25	88.53

Tract	9624	9625	9626	9627	9628	9629	9630
Per Capita Income	19,192	14,356	12,397	14,360	13,752	13,285	11,862
Percent of State	105.51	78.93	68.16	78.95	75.61	73.04	65.22



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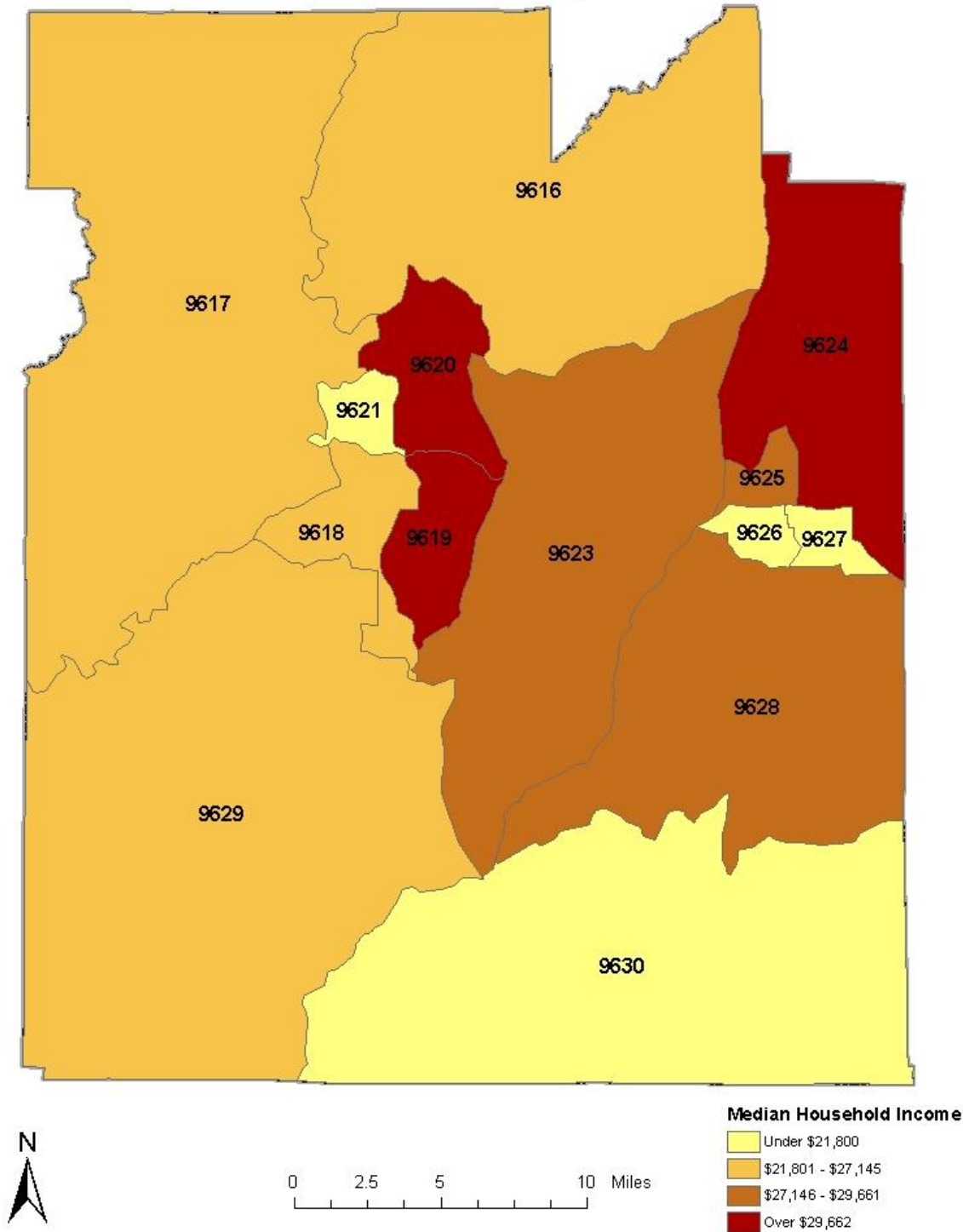
Figure 4.9.6 displays median household income by census tracts. Median household income takes the average of every household income in the tract. There are no census tracts in Covington County that meets the state median household income of \$34,135. Tract 9619, encompassing portions of Andalusia and Libertyville, has the highest median household income at \$32,036. Tract 9630, encompassing Florala and Lockhart, has the lowest median household income at \$18,984.

Figure 4.9.6 Covington County Median Household Income by Census Tract

Tract	9616	9617	9618	9619	9620	9621	9623
Median Household Income (\$)	27,145	26,504	25,000	32,036	31,489	21,800	28,635
Percent of State	79.52	77.65	73.24	93.85	92.25	63.86	83.89

Tract	9624	9625	9626	9627	9628	9629	9630
Median Household Income	31,136	29,661	20,800	20,743	28,810	26,453	18,984
Percent of State	91.21	86.89	60.94	60.77	84.40	77.50	55.61

Median Household Income by Census Tract



Covington County Hazard Mitigation Plan

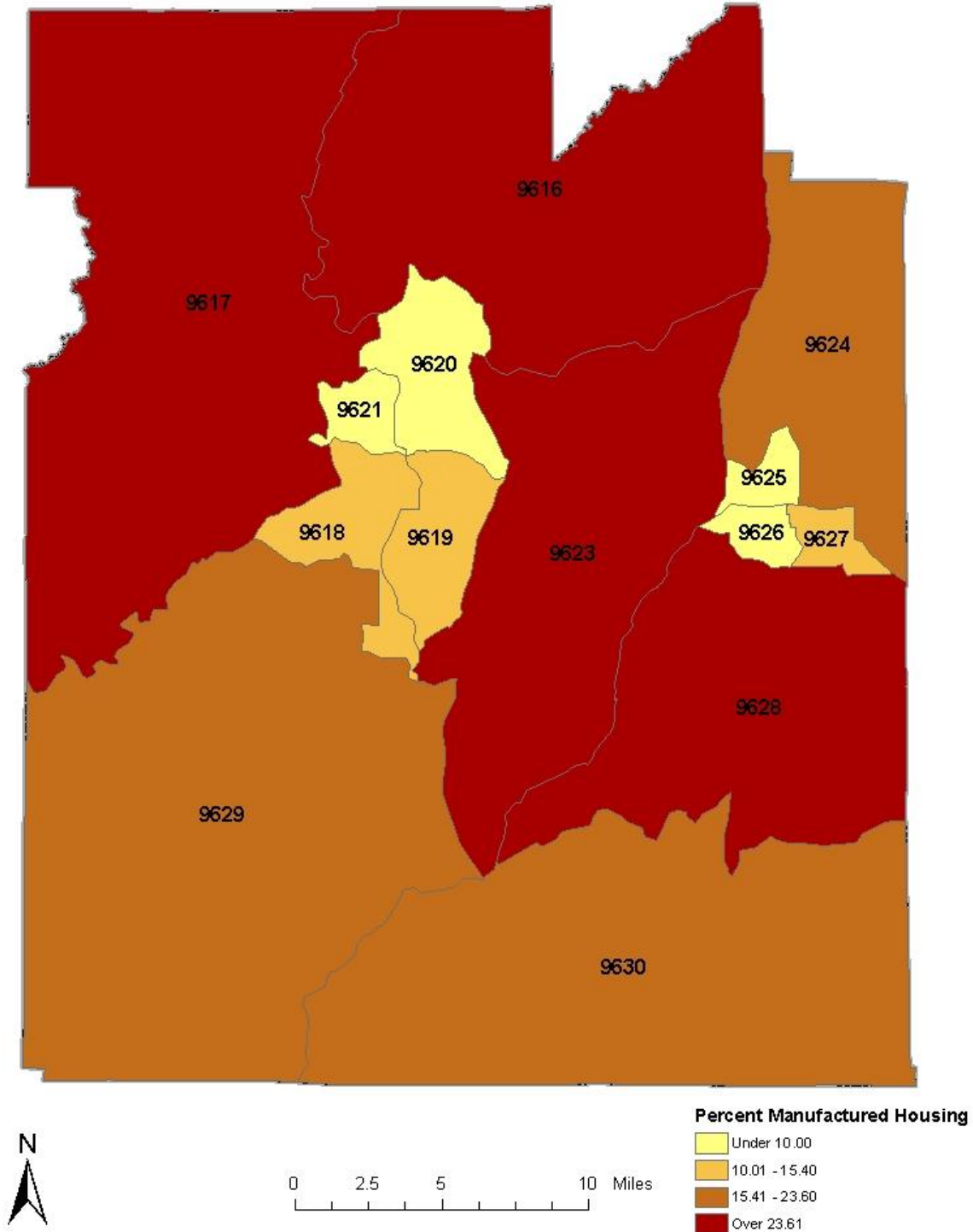
Housing is another concern when taking community vulnerability into account. Manufactured housing is has a higher damage susceptibility during natural hazards, putting the residents of manufactured houses into higher risk of vulnerability. Figure 4.9.7 shows the percentage of manufactured housing units within a census tract. Tract 9628, encompassing Horn Hill and Onycha, has the highest percentage of manufactured housing with 33.7%. Tract 9617, encompassing Red Level and River Falls, also has a high percentage with 32.7% manufactured housing units. Tract 9625, which has a portion of Opp, has the least percentage of manufactured housing units with 3.6%.

Figure 4.9.7 Covington County Manufactured Housing by Census Tract

Tract	9616	9617	9618	9619	9620	9621	9623
Total Housing Units	2,166	2,098	1,388	1,028	2,063	961	1,424
Percent Manufactured Homes	29.80	32.70	15.40	12.90	10.00	7.40	39.00

Tract	9624	9625	9626	9627	9628	9629	9630
Total Housing Units	1,624	742	710	857	810	813	1,894
Percent Manufactured Homes	23.10	3.60	9.60	11.80	33.70	23.60	20.10

Percentage of Manufactured Housing by Census Tract



4.10 County Building Stock

It is prudent to examine the number and value of structures that can be affected by natural hazards. Table 4.10.1 lists the approximate number of structures in each jurisdiction in Covington County in 2008. Table 4.10.2 lists number of structures by type in each census tract. Figure 4.10.1 shows the building count by census tracts. The northwest areas of Covington County have the most buildings in it. This area includes portions of Andalusia, Gantt, Heath, Red Level, and River Falls.

There are not many critical facilities that are believed to be vulnerable to dam failure and riverine flooding. The Covington County EMA plans to assess the vulnerability to critical facilities and infrastructure in the future.

Table 4.10.1 Structure Count by Jurisdictions in Covington County

	Andalusia	Babbie	Carolina	Floral	Gantt	Heath	Horn Hill
Structures	5,907	448	165	1,595	185	176	N/A

	Libertyville	Lockhart	Onycha	Opp	Red Level	River Falls	Sanford	County
Structures	100	344	120	4,250	375	452	284	12,211

Source: Covington County EMA

Table 4.10.2 Building Count by General Occupancy by Census Tract

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
9616	2,004	1	0	0	0	0	0	2,005
9617	1,848	12	1	1	3	0	0	1,865
9618	1,106	22	2	1	2	0	0	1,133
9619	941	0	0	0	0	0	0	941
9620	1,730	23	1	0	2	2	0	1,758
9621	681	20	0	0	1	2	0	704
9623	1,317	0	0	0	0	0	0	1,317
9624	1,493	11	0	0	1	2	0	1,507
9625	615	5	1	0	0	0	0	621
9626	509	4	0	0	0	0	0	513
9627	613	10	2	0	2	0	0	627
9628	718	0	0	0	0	0	0	718
9629	679	0	0	0	0	0	0	679
9630	1,446	10	1	0	2	0	0	1,459

Source: FEMA HAZUS-MH

Covington County Hazard Mitigation Plan

Figure 4.10.1 Covington County Building Count by Census Tract

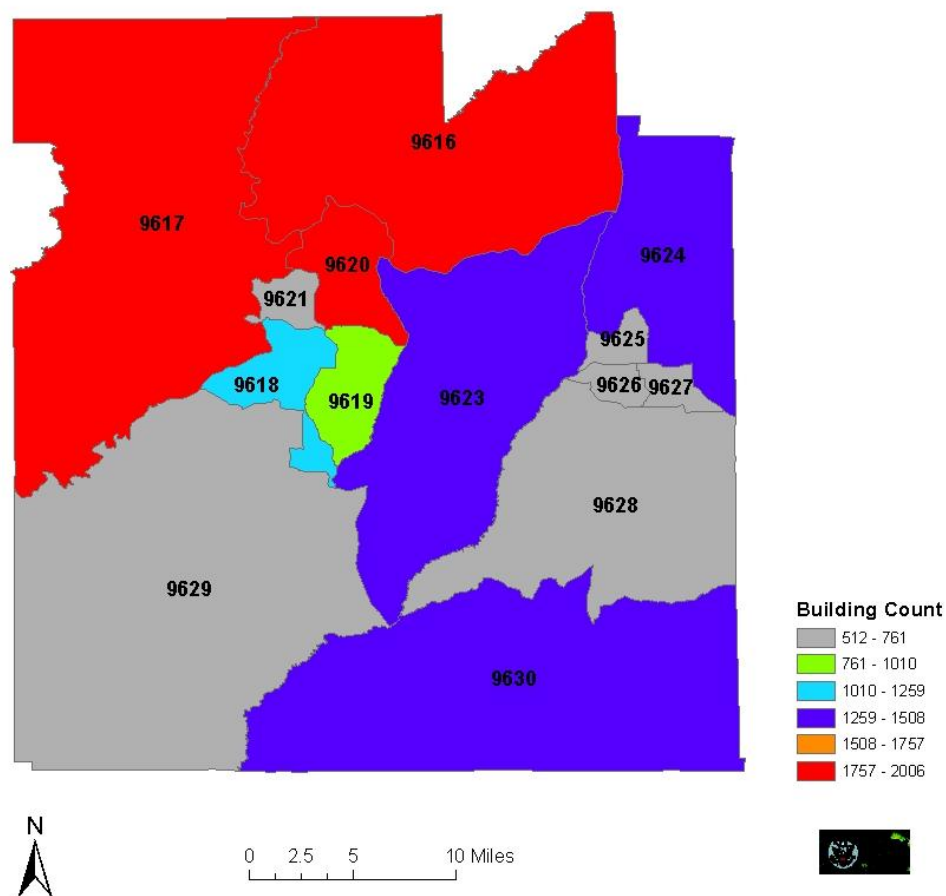


Table 4.10.3 presents an estimated building count for the year 2010 based on exponential growth analysis from 1990 to 2000 using HAZUS-MH data. Most of the expansion is presumed to occur in the residential sector.

Table 4.10.3 Estimated Building Count by General Occupancy by Census Tract (2010)

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
9616	2,346	0	0	0	0	0	0	2,346
9617	1,918	16	1	1	9	0	0	1,945
9618	992	37	1	1	1	0	0	1,032
9619	1,005	0	0	0	0	0	0	1,005
9620	1,888	17	0	0	0	4	0	1,909
9621	568	9	0	0	0	3	0	580
9623	1,623	0	0	0	0	0	0	1,623
9624	1,716	7	0	0	0	4	0	1,727
9625	609	3	0	0	0	0	0	612
9626	424	2	0	0	0	0	0	426
9627	550	3	0	0	1	0	0	554
9628	887	0	0	0	0	0	0	887
9629	665	0	0	0	0	0	0	665
9630	1,391	6	0	0	1	0	0	1,398

Source: FEMA HAZUS-MH

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Table 4.10.4 presents dollar exposure to hazards by general occupancy. Figure 4.10.2 gives dollar exposure by census tract. These estimates include structure and contents and were derived from HAZUS-MH data. Tract 9620, which encompasses the northeast section of Andalusia and the Town of Heath, has the highest level of exposure in Covington County, with \$495,180,000.

Table 4.10.4 Dollar Exposure in Thousands of Dollars by Census Tract

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
9616	314,867	2,720	2,292	0	2,076	0	0	321,955
9617	265,081	44,994	8,648	4,062	9,356	578	0	332,719
9618	219,247	93,036	12,847	4,398	6,638	902	0	337,068
9619	180,911	2,260	420	0	982	0	0	184,573
9620	349,439	114,522	11,815	630	10,818	4,136	3,820	495,180
9621	155,223	71,492	5,005	174	3,354	3,142	0	238,390
9623	182,278	0	0	0	0	0	0	182,278
9624	252,518	61,681	2,215	310	5,384	3,854	928	326,890
9625	147,367	23,026	4,793	1,250	1,894	0	1,522	179,852
9626	108,678	17,962	3,776	2,018	3,216	0	186	135,836
9627	120,893	64,153	9,900	878	7,758	1,174	0	204,756
9628	103,470	0	0	0	0	0	0	103,470
9629	109,527	1,078	0	0	0	0	0	110,605
9630	242,370	39,372	6,231	1,390	11,810	0	2,988	304,161

Source: FEMA HAZUS-MH

Covington County Hazard Mitigation Plan

Figure 4.10.2 Covington County Total Exposure by Census Tract

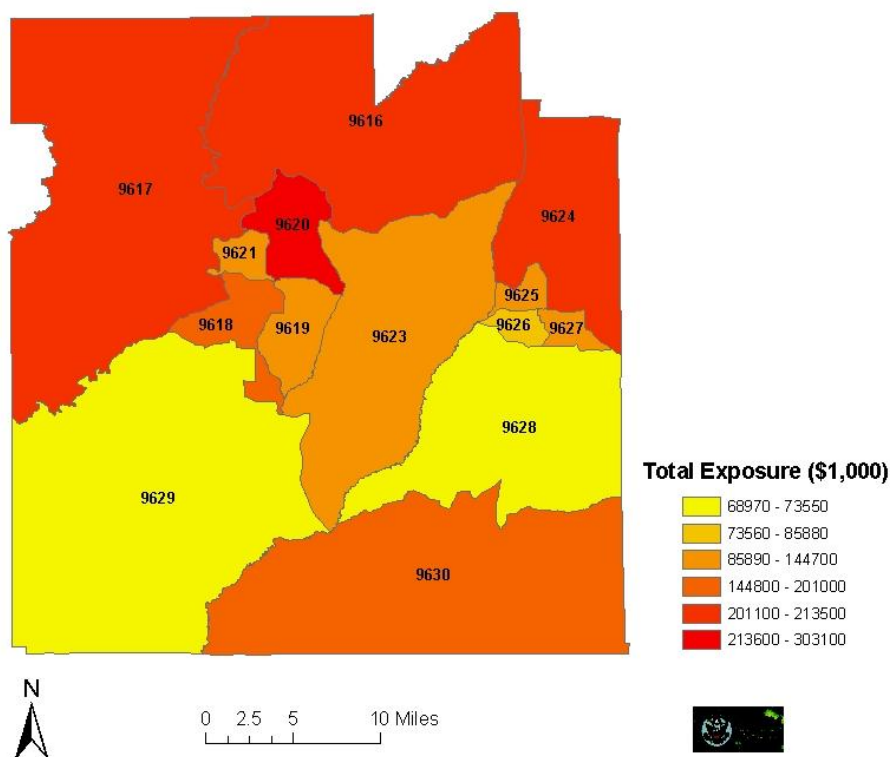


Table 4.10.5 presents an estimate of dollar exposure by census tract in Covington County in the year 2010. The information was calculated using linear growth analysis of trends from 1990 to 2000. Tract 9620, which had the highest exposure for the year 2000, is expected to retain that position with a total of \$787,357.

Table 4.10.5 Estimated Dollar Exposure in Thousands of Dollars by Census Tract (2010)

Tract	Residential	Commercial	Industrial	Agricultural	Religious	Government	Education	Total
9616	509,057	0	3,018	0	3,541	0	0	515,616
9617	404,192	83,918	15,463	8,033	17,582	696	0	529,884
9618	114,735	175,231	21,778	8,672	10,197	1,449	0	332,062
9619	291,332	0	0	0	580	0	0	291,912
9620	562,774	200,831	4,344	0	7,004	7,823	4,581	787,357
9621	81,837	107,443	7,695	312	4,888	5,007	0	207,182
9623	291,400	0	0	0	0	0	0	291,400
9624	405,779	108,647	4,129	592	9,147	7,376	0	535,670
9625	239,147	37,385	0	2,426	1,726	0	2,571	283,255
9626	165,325	28,633	5,495	4,036	4,932	0	372	208,793
9627	178,980	99,847	13,015	1,673	12,288	2,104	0	307,907
9628	166,784	0	0	0	0	0	0	166,784
9629	169,000	1,466	0	0	0	0	0	170,466
9630	363,275	62,355	7,336	2,747	20,286	0	4,735	460,734

Source: FEMA HAZUS-MH

4.11 Critical Facilities/Infrastructure Identification

The Covington County Hazard Mitigation Planning Committee defined critical facilities/infrastructure as critical to the health and welfare of the entire jurisdiction. They become essential in the event of a natural disaster. Some of the critical facilities/infrastructure submitted includes police stations, fire stations, schools, and hospitals. Also, critical facilities can be lifelines that provide the jurisdiction with necessities such as potable water, transportation corridors necessary for connecting to other areas and for evacuation purposes, and locations with large numbers of vulnerable populations.

Figures 4.11.1 through 4.11.7 illustrate the location of some critical facilities in Covington County. The facilities illustrated include community facilities that ensure the welfare of people within the County. Some critical facilities/infrastructure is not illustrated due to the sensitive nature of the information.

Police Departments (Figure 4.11.1)

Andalusia Police Department

102 Opp Ave
Andalusia, AL 36420

Covington County Sheriff's Department

290 Hillcrest Dr
Andalusia, AL 36420

Floralá Police Department

22654 Wall Ave
Floralá, AL 36442

Gantt Police Department

28830 Commerce St
Gantt, AL 36038

Lockhart Police Department

1548 Chippeway St
Lockhart, AL 36455

Opp Police Department

104 N Main St
Opp, AL 36467

Red Level Police Department

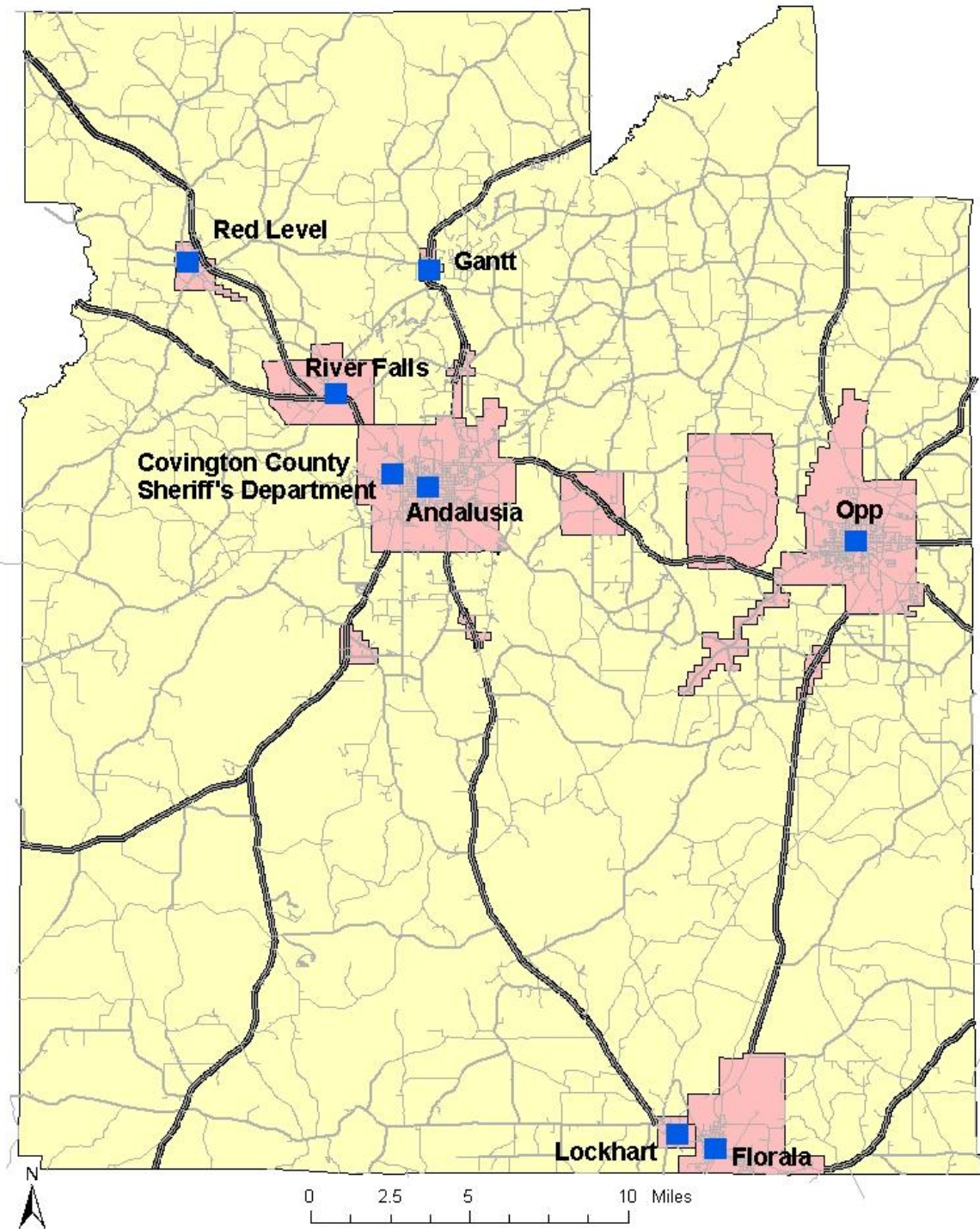
29098 Smiley St
Red Level, AL 36474

River Falls Police Department

24681 Firehouse Rd
River Falls, AL 36476

Covington County Hazard Mitigation Plan

Figure 4.11.1 Covington County Critical Facilities: Police Departments



Fire Departments (Figure 4.11.2)

Andalusia Fire Department

100 Church St
Andalusia, AL 36420

Antioch VFD

29183 Antioch Rd
Andalusia, AL 36420

Babbie VFD

22543 Babbie Rd
Andalusia, AL 36420

Buck Creek VFD

34928 Hesters Store Rd
Red Level, AL 36474

Carolina VFD

11442 Jacobs Rd
Andalusia, AL 36420

Dixie VFD

Rt 7, Box 131
Andalusia, AL 36420

Floralia VFD

1015 Fourth St
Floralia, AL 36442

Gantt VFD

28895 Commerce St
Gantt, AL 36038

Heath VFD

25642 Sutton Rd
Andalusia, AL 36420

Hopewell VFD

6629 Brooklyn Rd
Andalusia, AL 36420

Libertyville VFD

20998 AL Highway 55
Andalusia, AL 36420

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Loango VFD

23725 Eiland Rd
Red Level, AL 36474

Lockhart VFD

1546 Chippeway St
Lockhart, AL 36455

Onycha VFD

25374 Indian Creek Rd
Opp, AL 36467

Opp Fire Department

200 N Main St
Opp, AL 36467

Red Level VFD

29047 Watson St
Red Level, AL 36474

Red Oak VFD

13737 AL Highway 55
Andalusia, AL 36420

River Falls VFD

24681 Firehouse Rd
River Falls, AL 36476

Rose Hill VFD

37012 Straughn School Rd
Dozier, AL 36028

Sanford VFD

21447 Firehouse Rd
Andalusia, AL 36420

South Alabama Regional Airport Fire & Rescue

21861 Bill Benton Lane
Andalusia, AL 36421

Union Grove VFD

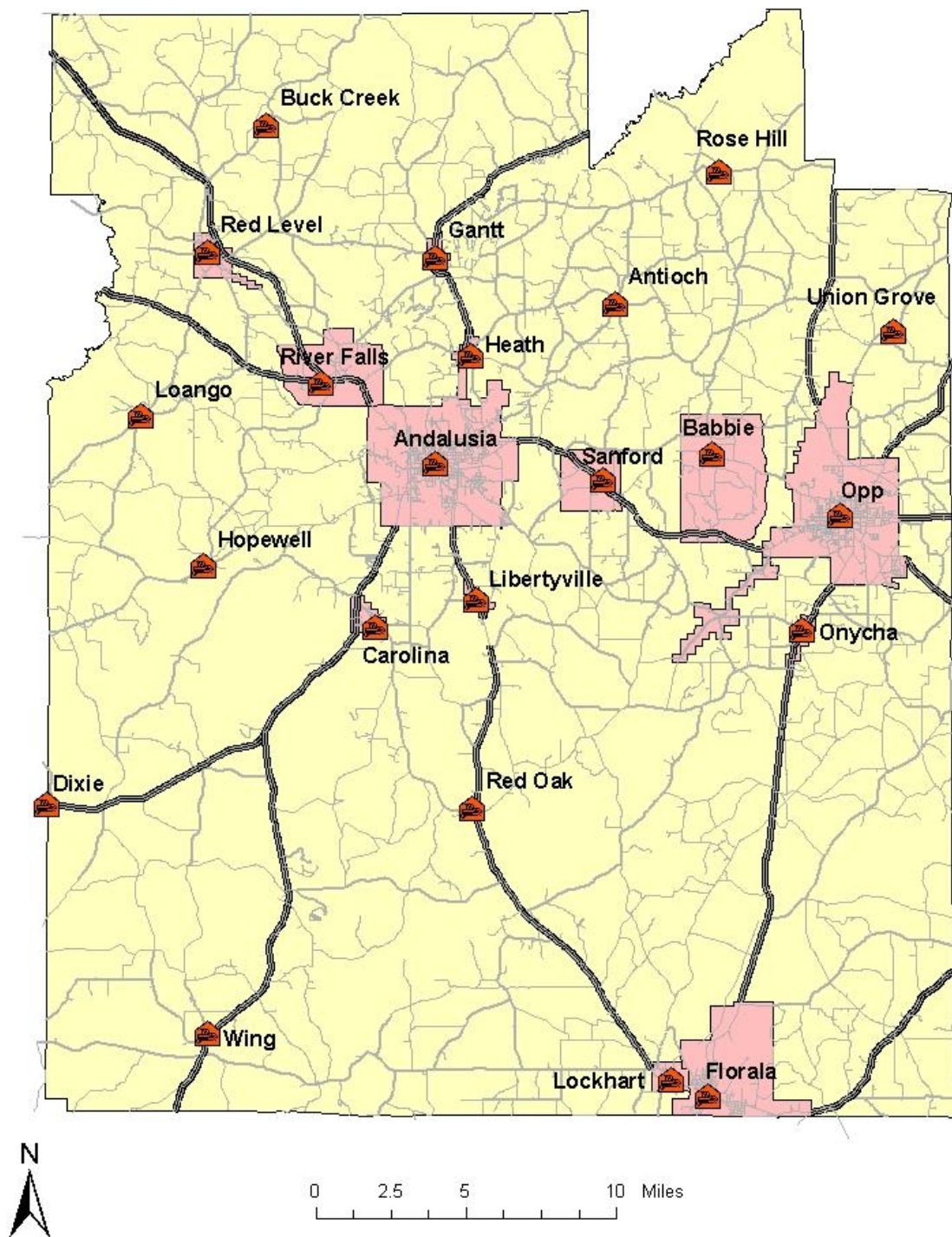
27716 Fleeta Rd
Opp, AL 36474

Wing VFD

3085 AL Highway 137
Wing, AL 36483

Covington County Hazard Mitigation Plan

Figure 4.11.2 Covington County Critical Facilities: Fire Departments



Schools (Figure 4.11.3)

Andalusia Elementary School

1501 West Bypass
Andalusia, AL 36420

Andalusia Middle School

1201 C C Baker Ave
Andalusia, AL 36421

Andalusia High School

701 Third Avenue
Andalusia, AL 36420

Fleeta Junior High School

27463 County Road 30
Opp, AL 36467

Floral High School

22114 Begonia St
Floral, AL 36442

Floral Middle School

22975 Seventh Ave
Floral, AL 36442

Opp Elementary School

27098 Bobcat Drive
Opp, AL 36467

Opp High School

502 N Maloy St
Opp, AL 36467

Opp Middle School

303 E Stewart Ave
Opp, AL 36467

Pleasant Home School

12548 Falco Rd
Andalusia, AL 36420

Red Level School

28551 Barrow Rd
Red Level, AL 36474

Covington County Hazard Mitigation Plan

Straughn Elementary and Middle Schools

29324 Straughn School Rd
Andalusia, AL 36421

Straughn High School

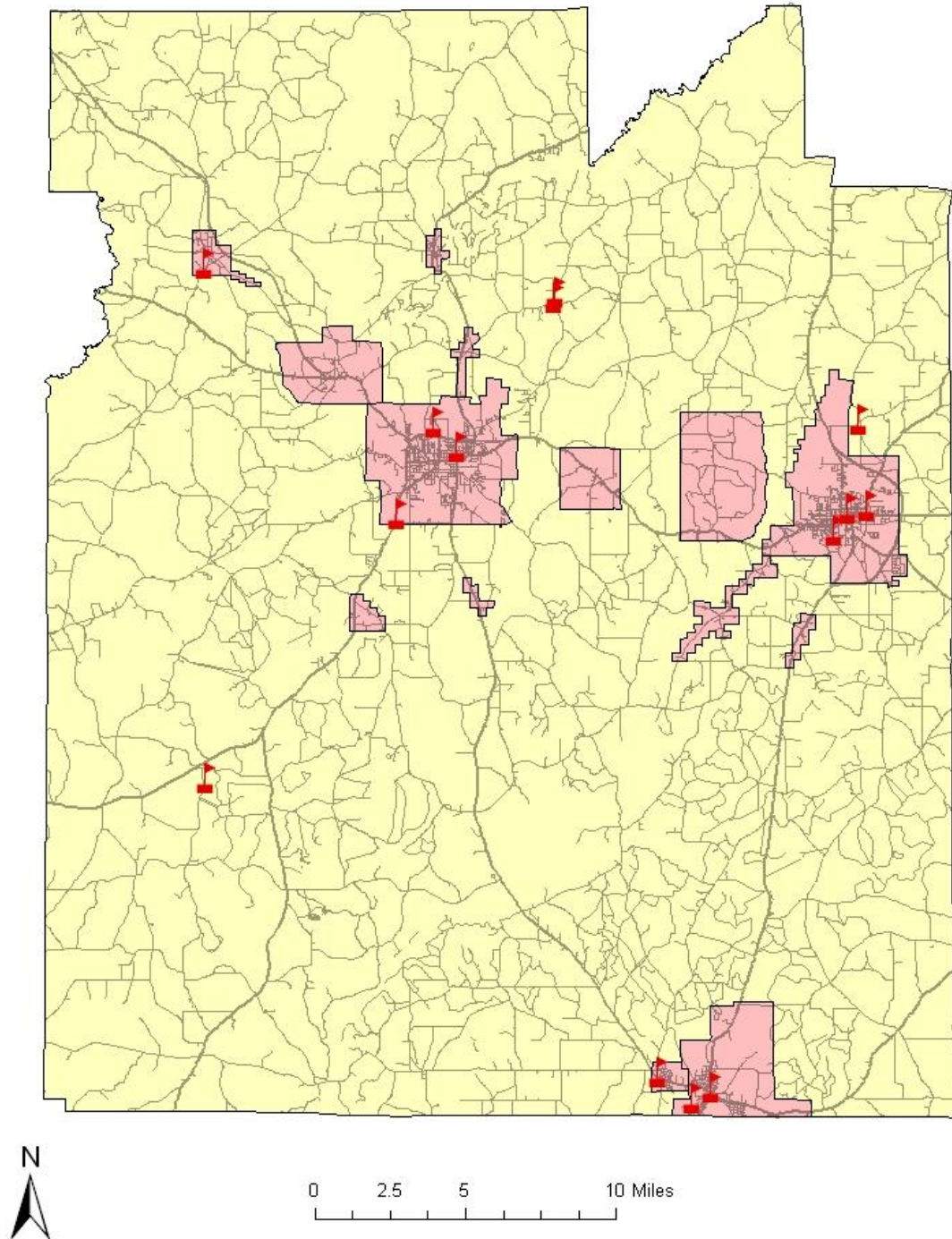
29448 Straughn School Rd
Andalusia, AL 36421

W.S. Harlan Elementary School

1641 Mohegan St
Lockhart, AL 36455

Covington County Hazard Mitigation Plan

Figure 4.11.3 Covington County Critical Facilities: Schools



Covington County Hazard Mitigation Plan

Outside Warning Sirens (Figure 4.11.4)

Andalusia – SW

1000 S Three Notch St

Andalusia – NW

12136 Lavon Shaddix Ln

Andalusia – NE

1709 Pioneer Dr

Andalusia – SE

1108 Lindsey Bridge Rd

Andalusia – Center

125 Fifth St

Opp – SW

411 Twelfth St

Opp – SE

602 S Maloy St

Opp – North

26722 County Road 38

Opp – Center

101 ½ E Paulk Ave

Floral

2605 AL Highway 55

Gantt

13339 Kirkpatrick Rd

Heath

14696 Heath/River Falls Rd

Straughn

27633 Robin Rd

Babbie

21383 Babbie Rd

Onycha

25349 Indian Creek Rd

Covington County Hazard Mitigation Plan

Pleasant Home

12458 Falco Rd

Carolina

11699 Jacobs Rd

Libertyville

17221 Beaver Dam Rd

Sanford

21459 Firehouse Rd

River Falls

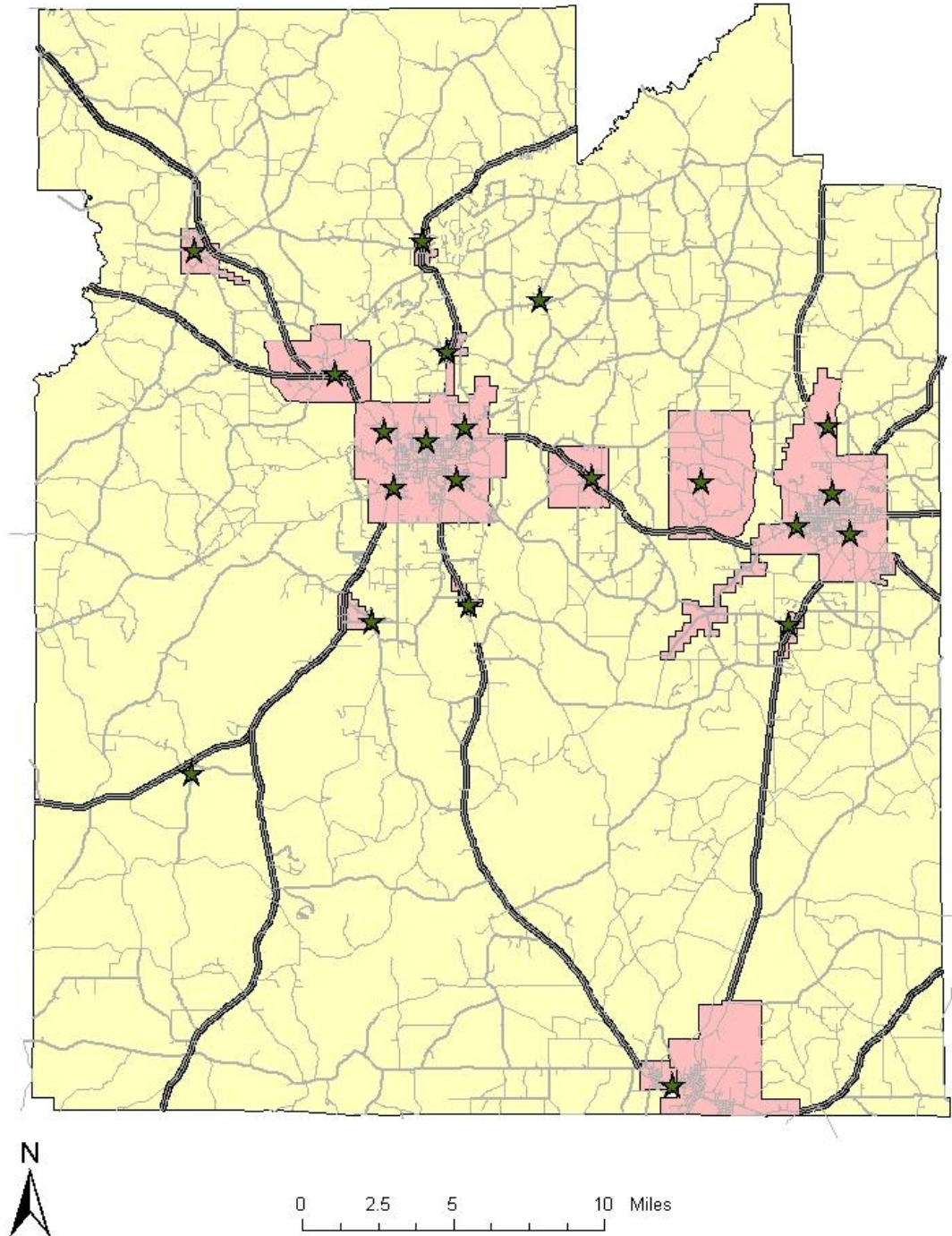
24911 Sunnyside St

Red Level

29500 Main St

Covington County Hazard Mitigation Plan

Figure 4.11.4 Covington County Critical Facilities: Outside Warning Sirens



Covington County Hazard Mitigation Plan

Major Transportation Routes (Figure 4.11.5)

US Highway 29

US Highway 84

US Highway 331

AL Highway 52

AL Highway 54

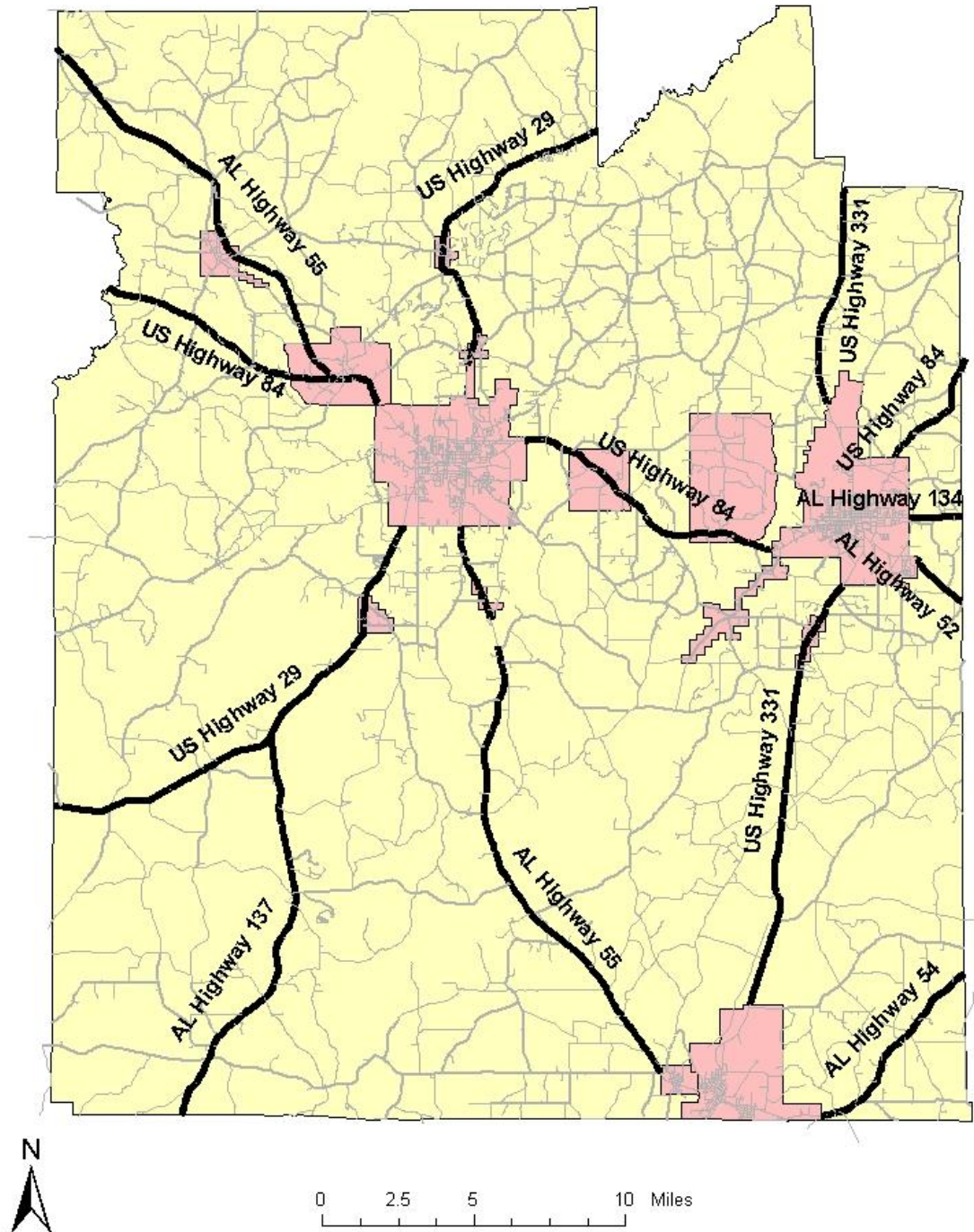
AL Highway 55

AL Highway 134

AL Highway 137

Covington County Hazard Mitigation Plan

Figure 4.11.5 Covington County Critical Infrastructure: Major Transportation Routes



Covington County Hazard Mitigation Plan

Hurricane Evacuation Routes (Figure 4.11.6)

US Highway 331 to Interstate 65

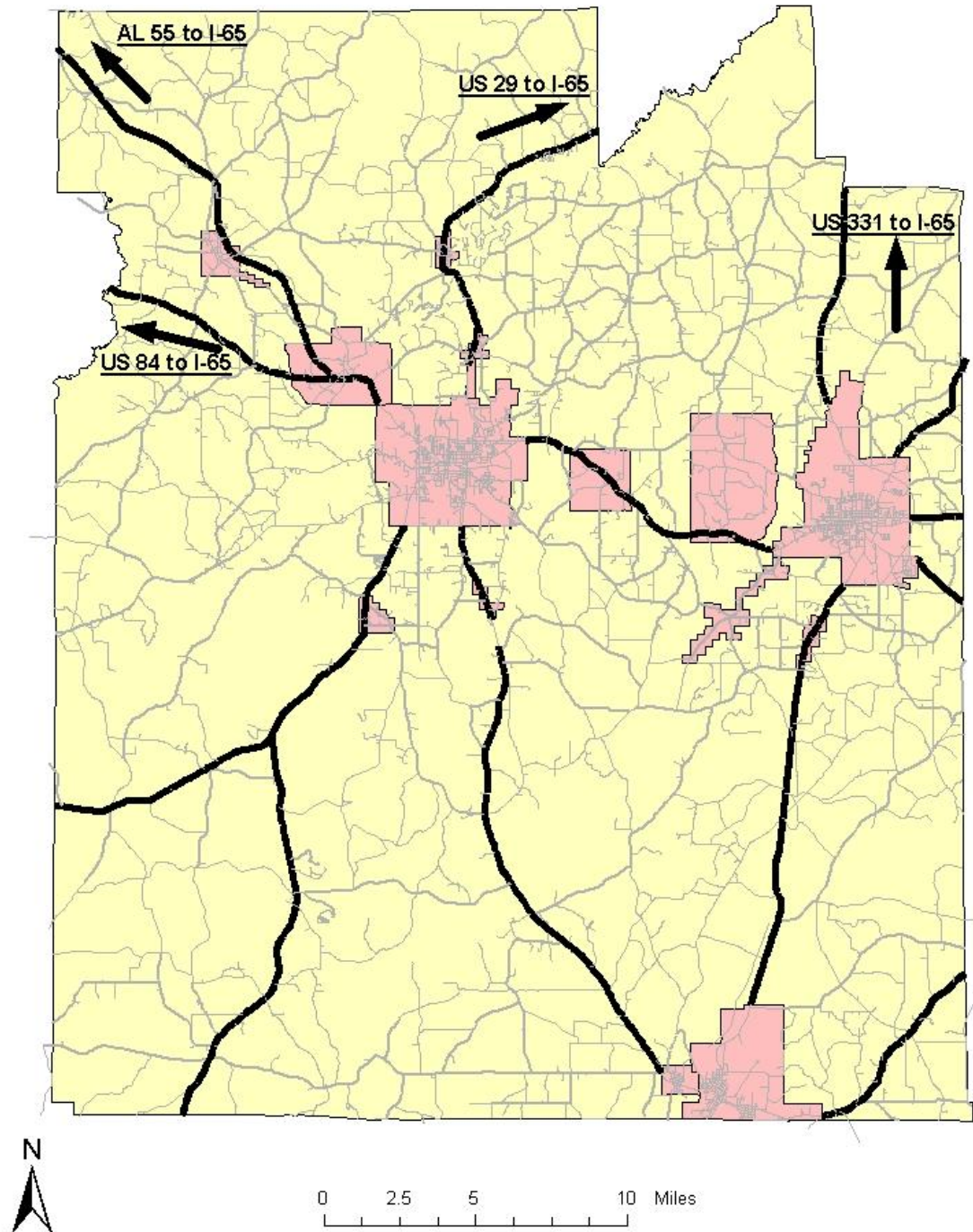
US Highway 29 to Interstate 65

US Highway 84 to Interstate 65

AL Highway 55 to Interstate 65

Covington County Hazard Mitigation Plan

Figure 4.11.6 Covington County Critical Infrastructure: Hurricane Evacuation Routes



Hospitals (Figure 4.11.7)

Andalusia Hospital

849 S Three Notch St
Andalusia, AL 36420

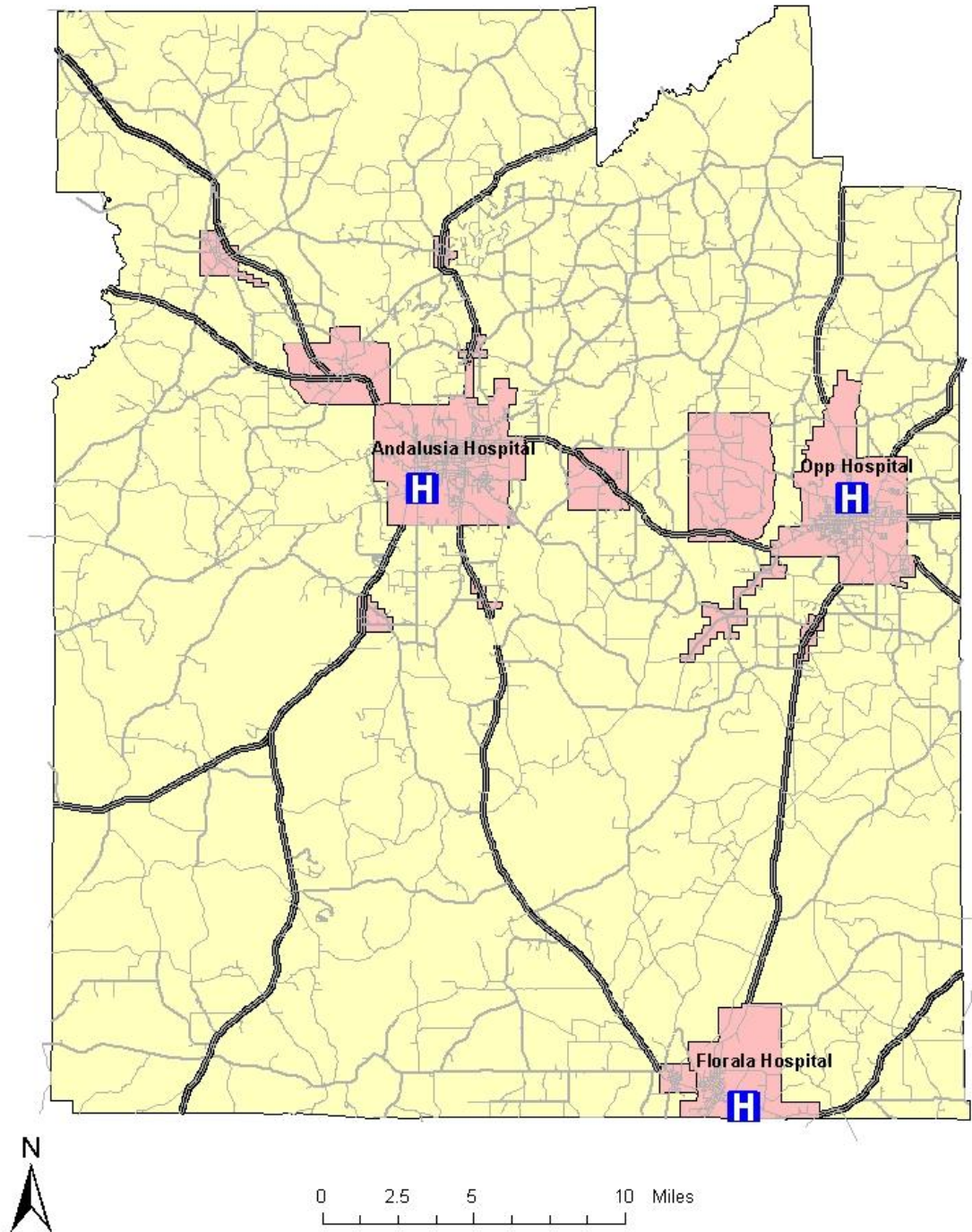
Floral Hospital

24273 Fifth Ave
Floral, AL 36442

Opp Hospital

702 N Main St
Opp, AL 36467

Figure 4.11.7 Covington County Critical Facilities: Hospitals



Covington County Hazard Mitigation Plan

Hazardous Materials Sites (Figure 4.11.8)

Covington County (Unincorporated)

Bullock Propane Tanks
National Butane Tanks
McWilliams Power Plant
ACME Propane Tanks
Cooperative Propane

Andalusia

ACME Propane
PowerSouth Energy Cooperative
Shaw Industries
Couch Construction
Gulf States Cold Storage
Andalusia Farmers Coop
Matthews Petroleum
Allied Waste Services
Sunbelt Rentals

Floral

Floral Farmers Coop
Zorn Brothers
Dowdle Gas

Opp

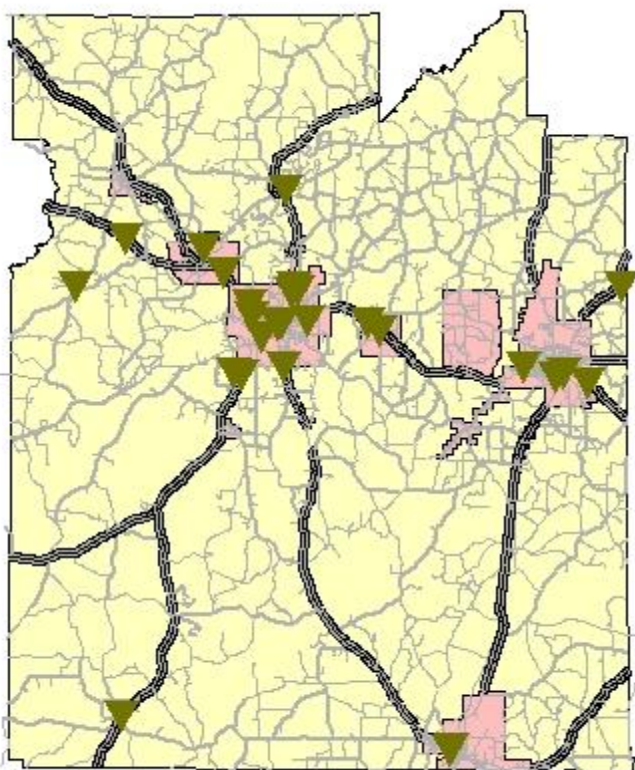
Johnston Industries
Bullock Propane
Opp Farmers Coop
Amerigas Propane
Cooperative Propane

River Falls

ACME Propane Tanks
ARCLIN Corporation
Quality Carriers, Inc.

Sanford

ACME Propane Tanks
Covington Electric

Figure 4.11.8 Covington County Critical Facilities: Hazardous Materials Sites

4.12 Critical Facilities/Infrastructure by Jurisdiction

Tables 4.12.1 through 4.12.15 display critical facilities/infrastructure by jurisdiction. Also estimated replacement value of each critical unit is given, according to their insured value. The information listed below was provided by the individual jurisdictions.

Table 4.12.1 Covington County Critical Facilities/Infrastructure

Location	Replacement Value
County Owned Buildings	
• Administrative Complex	\$1,600,000
• Jail	\$3,265,000
• Engineers Office	\$107,000
• Communications Tower (Engineering)	\$10,000
• Communications Tower (Jail)	\$10,000
• Courthouse	\$5,500,000
• District 1 County Yard	\$35,000
• District 2 County Yard	\$340,000
• District 3 County Yard	\$35,000
• District 4 County Yard	\$35,000
• Health Department	\$1,929,000
• Arena	\$3,200,000
• Cattle Barn	\$625,000
• Farm Services Office Building	\$1,000,000
Outdoor Warning Sirens (21 total)	\$357,000
Covington County Water Authority	Office Included in Administrative Complex

Covington County Hazard Mitigation Plan

• Water Tank County Road 4	\$114,500.00
• Water Tank County Road 24	\$137,600.00
• Water Tank County Road 7	\$262,500.00
• Water Tank County Road 53	\$315,000.00
• Water Tank US Highway 331	\$250,000.00
• Water Tank County Road 49 & 57	\$275,000.00
• Pump Station AL Highway 137	\$94,500.00
• Pump Station County Road 53	\$94,500.00
• Pump Station County Road 49 & 53	\$94,500.00
• Pump Station County Road 7	\$94,500.00
• Pump Station US Highway 331	\$94,500.00
• Pump Station County Road 49 & 57	\$96,000.00
Airport	\$2,044,874.00
PowerSouth-Headquarters	\$33,600,000.00
PowerSouth-McWilliams Power Plant	\$89,000,000.00
PowerSouth-Vann Power Plant	\$300,000,000.00
Gantt and Point A Dams	\$8,000,000.00
Covington Electric Cooperative	
• Headquarters Facilities	\$8,825,000.00
• Electrical Facilities	\$67,318,752.00
Covington County Schools	
• Pleasant Home School (14 buildings)	\$13,505,093
• Fleeta Junior High School (6 buildings)	\$5,783,415
• Straughn High School (13 buildings)	\$13,282,645
• Straughn Middle School (4 buildings)	\$10,107,763
• Straughn Elementary School (8 buildings)	\$6,044,495
• Service Center	\$227,432.00

Table 4.12.2 City of Andalusia Critical Facilities/Infrastructure

Type of Facility	Number of Existing Buildings/Facilities	Current Replacement Value
County E-911 Building	1	\$75,000
Fire Station	1	\$357,123
Police Station	1	\$1,129,256
Hospital	1	N/A
Government Building	1	\$10,000,000
Major Roads	14 (miles)	\$15,300,000
Utility Buildings	3	\$1,253,790
Electric System	1	\$6,550,558
Sewage Treatment Plant	1	\$604,150
Wells and Storage Tanks	13	\$3,450,000
Pump Stations	24	\$2,400,000
Andalusia City Schools	16	\$32,000,000
Public Works	1	\$357,616
Covington County Schools Admin Building	3	\$3,543,112 (building) \$882,015 (contents)

Table 4.12.3 Town of Babbie Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
Town Hall	\$75,000	N/A
Fire Department	\$200,000	N/A

Covington County Hazard Mitigation Plan

Table 4.12.4 Town of Carolina Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
Town Hall	\$20,000	N/A
Fire Department	N/A	N/A

Table 4.12.5 City of Florala Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
City Hall/Police Department	\$96,964	\$24,242
Fire Department	\$65,564	\$12,731
Old Armory (Shelter)	\$90,905	\$5,000
City Yard (two buildings)	\$40,000	\$15,000
Senior Center	\$350,000	\$25,000
Library	\$72,722	\$121,206
Florala Utilities Building	\$200,000	\$50,000
E 6 th Avenue Lift Station	\$50,000	N/A
E 2 nd Avenue Lift Station	\$50,000	N/A
S 3 rd Street Lift Station	\$50,000	N/A
N 6 th Street Pump House	\$52,336	N/A
5 th Avenue Water Tank	\$202,592	N/A
Longview Avenue Water Tank	\$393,928	N/A
Gilmer Avenue Lift Station	\$50,000	N/A
Lakeshore Blvd Lift Station	\$50,000	N/A
McPhail Farm Rd Lift Station	\$50,000	N/A
Grit Chamber Lift Station	\$50,000	N/A
CY Lift Station	\$50,000	N/A
Hwy 54 Lift Station	\$50,000	N/A
Central Lift Station	\$50,000	N/A
Florala Middle School (7 buildings)	\$5,683,946	\$1,173,815
Florala High School (9 buildings)	\$9,160,343	\$1,827,544

Table 4.12.6 Town of Gantt Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
Town Hall	\$73,159	\$28,139
Fire Department	\$150,000	\$500,000
Police Station	\$33,786	\$28,139
Storage Building	\$2,814	N/A

Table 4.12.7 Town of Heath Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
Town Hall / Fire Dept.	\$50,000	N/A

Table 4.12.8 Town of Horn Hill Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
Community Center	\$100,000	N/A

Table 4.12.9 Town of Libertyville Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
---------------	----------------	----------------

Covington County Hazard Mitigation Plan

Town Hall	N/A	N/A
Covington County Schools Bus Shop (5 buildings)	\$1,009,546	\$164,605

Table 4.12.10 Town of Lockhart Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
Municipal Building	\$150,000	\$10,000
Water Tank	\$450,000	N/A
Fire Station	\$30,000	N/A
Maintenance Bldg	\$65,000	N/A
Water Wells (2)	\$36,000	N/A
Water Well-Chlorine Bldg	\$1,000	N/A
Wastewater Treatment Plant	\$500,000	N/A
WWTP Building 1	\$22,511	\$106,924
WWTP Building 2	\$6,753	N/A
WWTP Building 3	\$6,753	N/A
WWTP Building 4	\$1,688	\$562
Lift Station	\$30,000	N/A
W.S. Harlan Elementary School (5 buildings)	\$6,127,252	\$1,109,009

Table 4.12.11 Town of Onycha Critical Facilities/Infrastructure

Building Name	Building Value	Contents Value
Town Hall/Fire Station	\$65,000	N/A

Table 4.12.12 City of Opp Critical Facilities/Infrastructure

Building Name	Building Value	Contents Value
City Hall	\$500,000	\$150,000
Municipal Building	\$1,071,699	\$183,911
Utility Board Office	\$348,316	\$222,922
Fire Station	\$600,495	\$1,550,000
Nutrition Center	\$228,912	\$16,719
Senior Citizens Center	\$500,000	\$50,000
City Shop	\$250,000	\$305,000
Health Department Building	\$53,045	N/A
Water Tank & Pump House	\$487,989	N/A
Water Tank & Pump House	\$442,272	N/A
Water Tank & Pump House	\$275,000	N/A
Water Tank & Pump House	\$250,562	N/A
Pump House	\$79,972	N/A
Pump House	\$91,398	N/A
East Side Treatment Lab	\$85,000	\$50,000
Treatment Plant Compressor Building	\$24,243	\$55,730
North Sewage Lift Station	\$57,123	N/A
Capitol Heights Sewage Lift Station	\$50,000	N/A
Westside Treatment Station Office & Shop	\$114,000	\$25,000

Table 4.12.13 Town of Red Level Critical Facilities/Infrastructure

Facility	Current Replacement Value	Number of Buildings/Facilities
Fire Department	\$78,008	1

Covington County Hazard Mitigation Plan

City Hall	\$167,096	1
Storage Shed	\$37,881	1
Activities Building	\$121,392	1
Annex Building	\$63,427	1
Terry Memorial Clinic	\$124,042	1
Water Tank Site 1	\$233,694	1
Water Tank Site 2	\$116,848	1
Pump House	\$31,160	1
Water Pump	\$100,000	1
Community Center/Shelter	\$500,000	1
Old Learning Center – Smiley St	\$54,106	1
Crystal Springs Park Facility	\$71,685	1
Red Level School	\$16,307,431	14

Table 4.12.14 Town of River Falls Critical Facilities/Infrastructure

Structure	Replacement Cost
Town Hall / Fire Department	\$100,000.00
Water Tank	\$277,000.00
Water Lines	\$555,000.00
Old Town Hall	\$15,000.00
Equipment*	\$20,000.00
Roads (Streets) and Bridges	N/A

* Equipment includes all office equipment and furniture, all Municipal Court equipment, all kitchen fixtures such as refrigerators, stove, and other appliances

Table 4.12.15 Town of Sanford Critical Facilities/Infrastructure

Building Type	Building Value	Contents Value
Town Hall / Fire Dept.	\$100,000	N/A

4.13 Repetitive Loss Properties

According to the State NFIP Coordinator, Covington County has six (6) residential structures in Covington County that are Repetitive Loss Properties. All six (6) residential structures are located in unincorporated Covington County and have two (2) claims made each for a total of 12 claims for \$214,163.00.

4.14 Analyzing Development Trends

Note: Covington County does not have a land use plan. At this time, comprehensive data that is more recent than 2000 has not been developed. The following information is still considered mostly accurate.

Covington County is a mostly rural county with minor pockets of development in Andalusia and Opp. Covington County is dominated by forests and agricultural land, which compose over 97% of land use. Table 4.14.1 illustrates the types of land use within Covington County.

Table 4.14.1 Covington County Land Use in 2000 (acres)

Residential	Commercial	Industrial	Transportation	Public	Agriculture	Forest	Total Acreage
4,900	380	425	11,900	1,100	137,703	505,800	662,208
0.74%	0.06%	0.06%	1.80%	0.17%	20.80%	76.38%	100.00%

Covington County Hazard Mitigation Plan

Figure 4.14.1 illustrates land use in Covington County. Forest use dominates the County, especially over the Conecuh National Forest area. Agricultural use fills in most of the rest of the County.

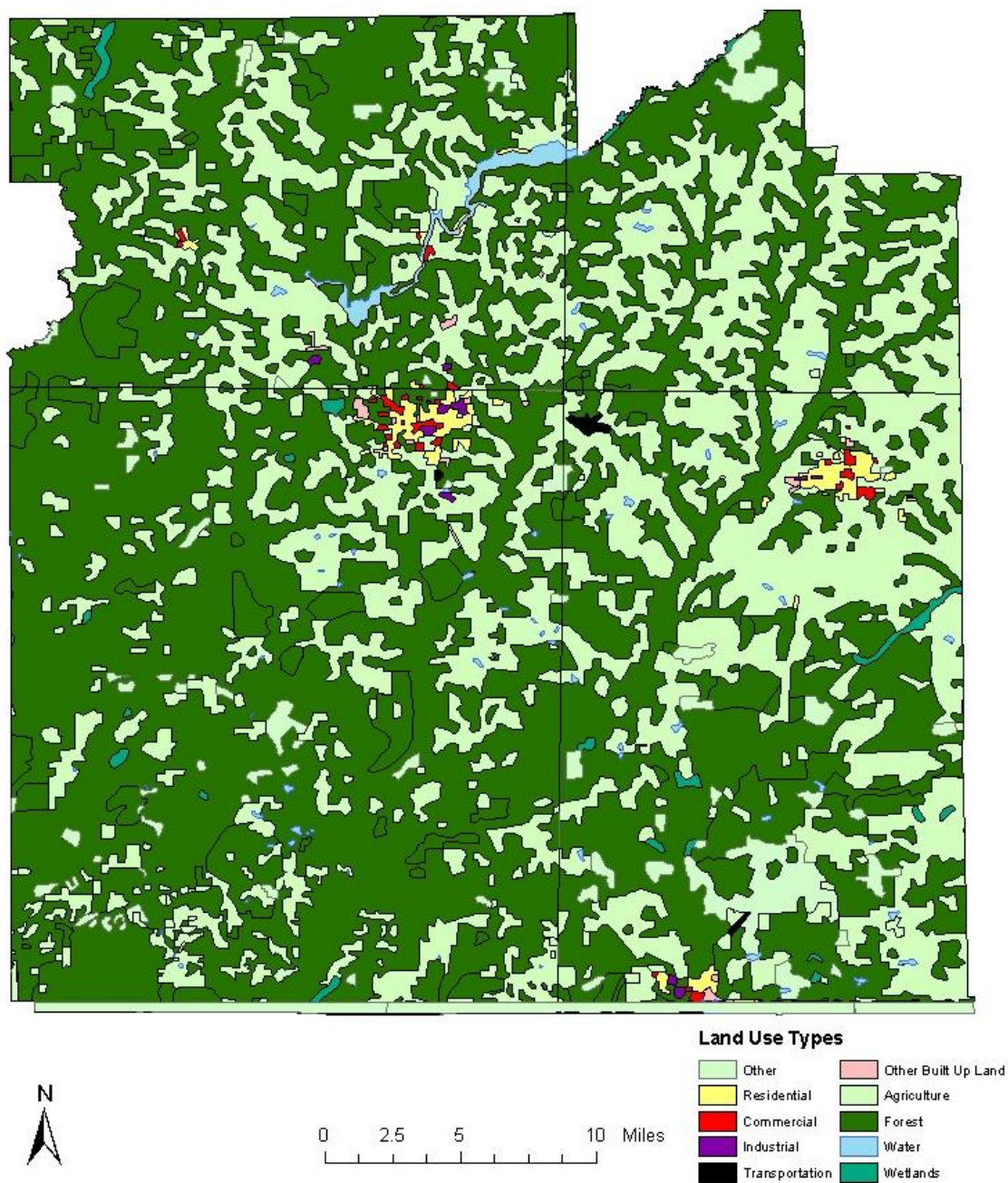


Figure 4.14.1 Covington County Land Use

Source: HAZUS99

Covington County Hazard Mitigation Plan

Covington County has only added around 2,000 residents in the past 40 years. Data from the U.S. Census Bureau and the Center for Business and Economic Research at The University of Alabama (CBER) project that Covington County will only grow at 1.8% over the next 25 years (Table 4.14.2).

As terms of future vulnerability to riverine flooding, most future growth in Covington County is projected to be residential areas on the outskirts of the Andalusia and Opp areas. With the exception of retrofitting critical facilities, enhancing warning systems, or building community shelters, Covington County has no additional critical facility projects planned for the near future. As need arises, those projects will be added to future mitigation actions. The City of Andalusia, in their Comprehensive Plan, maintains to protect floodplains by restricting future development in flood-prone areas. The City of Opp also recognizes the need for regulation of future floodplain development by making it a high priority. Other municipalities pledge to work with Covington County to aid their management of floodplain development, including the Towns of Babbie, Carolina, and Gantt working towards the goal of NFIP compliance.

Vulnerability to dam failure affects the Towns of Gantt and River Falls and rural portions of western Covington County. These areas are not projected to be high-growth areas in the next two decades. These jurisdictions recognize the need to protect against the risk of dam failure. They will work with the PowerSouth Energy Cooperative, Inc. to mitigate the vulnerability of dam failure to future structures.

Table 4.14.2 Covington County Population Projections 2005-2025

	Census 2000	2005	2010	2015	2020	2025	Change (2000- 2025)	Percent Change
Population	37,631	37,943	38,150	38,262	38,315	38,294	663	1.8%
Households	15,640	15,771	15,859	15,906	15,928	15,919	279	1.8%

Sources: U.S. Census Bureau, Center for Business and Economic Research at The University of Alabama

Section 5 – Mitigation

This section of the plan addresses requirements of Interim Final Rule (IFR) Section 201.6(c)(3).

Section Contents

- 5.1 Mitigation Planning Process
- 5.2 Covington County
- 5.3 City of Andalusia
- 5.4 Town of Babbie
- 5.5 Town of Carolina
- 5.6 City of Florala
- 5.7 Town of Gantt
- 5.8 Town of Heath
- 5.9 Town of Horn Hill
- 5.10 Town of Libertyville
- 5.11 Town of Lockhart
- 5.12 Town of Onycha
- 5.13 City of Opp
- 5.14 Town of Red Level
- 5.15 Town of River Falls
- 5.16 Town of Sanford

Section	Section Updates
5.x	<ul style="list-style-type: none"> Changes in numbering and organization
5.1	<ul style="list-style-type: none"> Narrative reflects update process for evaluating mitigation goals and actions Changed title of section
5.2	<ul style="list-style-type: none"> Incorporated Covington County Action Plan Added “Completed/Deleted Actions” table
5.3	<ul style="list-style-type: none"> Incorporated City of Andalusia Action Plan Added “Completed/Deleted Actions” table
5.4	<ul style="list-style-type: none"> Incorporated Town of Babbie Action Plan Added “Completed/Deleted Actions” table
5.5	<ul style="list-style-type: none"> Incorporated Town of Carolina Action Plan Added “Completed/Deleted Actions” table
5.6	<ul style="list-style-type: none"> Incorporated City of Florala Action Plan Added “Completed/Deleted Actions” table
5.7	<ul style="list-style-type: none"> Incorporated Town of Gantt Action Plan Added “Completed/Deleted Actions” table
5.8	<ul style="list-style-type: none"> Incorporated Town of Heath Action Plan Added “Completed/Deleted Actions” table
5.9	<ul style="list-style-type: none"> Incorporated Town of Horn Hill Action Plan Added “Completed/Deleted Actions” table
5.10	<ul style="list-style-type: none"> Incorporated Town of Libertyville Action Plan Added “Completed/Deleted Actions” table

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5.11	<ul style="list-style-type: none">• Incorporated Town of Lockhart Action Plan• Added “Completed/Deleted Actions” table
5.12	<ul style="list-style-type: none">• Incorporated Town of Onycha Action Plan• Added “Completed/Deleted Actions” table
5.13	<ul style="list-style-type: none">• Incorporated City of Opp Action Plan• Added “Completed/Deleted Actions” table
5.14	<ul style="list-style-type: none">• Incorporated Town of Red Level Action Plan• Added “Completed/Deleted Actions” table
5.15	<ul style="list-style-type: none">• Incorporated Town of River Falls Action Plan• Added “Completed/Deleted Actions” table
5.16	<ul style="list-style-type: none">• Incorporated Town of Sanford Action Plan• Added “Completed/Deleted Actions” table

5.1 Mitigation Planning Process

Each Hazard Mitigation Planning Committee member was asked to review the progress of their previously adopted mitigation goals and action plans and to reevaluate those strategies based on updated information from the risk assessment and their vulnerability to each profiled hazard. The Committee members were reminded to view their strategies in light of the likelihood of hazard occurrence within their jurisdiction, the spatial extent of hazard occurrences, and the impact of hazard occurrences in their jurisdictions. The jurisdictions were also asked to provide feedback regarding completion, addition, and deletion of their action items and other hazard mitigation projects. Each jurisdiction's strategies are continued to be prioritized based from the jurisdiction's assessment of social, technical, administrative, political, legal, economic, and environmental feasibility.

5.2 Mitigation Goals and Actions by Jurisdiction

Each action item is prioritized based on the above listed criteria. High priority project have an estimated implementation timeframe of one to two years, Medium priority projects have an estimated implementation timeframe of two to five years, Low priority projects have an estimated implementation timeframe of within the next ten years, and Ongoing projects are projected for continued implementation.

Priority mitigation projects will only be implemented if the maximum benefits outweigh the associated costs of the proposed projects. The Covington County Hazard Mitigation Planning Committee members performed a general assessment of each mitigation measure that might require FEMA funding. The Committee members weighed the estimated costs for each mitigation measure against the projected benefits to be derived. For example, a project to retrofit critical facilities would provide the following benefits: (1) the project protects critical facilities and infrastructure that are integral to the community, (2) the project reduces costs of replacing critical facilities and infrastructure, and (3) the project ensures that important services can be maintained through emergency periods. A more detailed benefit-cost analysis will be required for each priority project to determine economic feasibility during the project planning phase. Projects will also require a more detailed evaluation for eligibility and feasibility including social impact, environmental impact, technical feasibility and other criteria that measure project effectiveness. This detailed evaluation of projects will be performed in the pre-application phase of a grant request. Further, project implementation will be subject to the availability of FEMA grants and other sources of funds on a yearly basis.

Covington County Hazard Mitigation Plan

COVINGTON COUNTY

Prioritized Threat by Jurisdiction

1. High Winds
2. Flood
3. Drought/Extreme Heat
4. Wildfire

Goals

- Protect the lives and property of the citizens of Covington County from natural and technological disasters.
- Review the County's vulnerability to all hazards and prepare ourselves for the best response possible to those hazards.
- Continue public awareness of natural hazards and offer assistance where needed to educate as many people as possible on the planning and recovery process.
- Maintain relationships with stakeholders throughout the County to ensure we are adequately prepared and ready to respond to them in any disaster.
- Work on suggested mitigation projects to reduce vulnerability to natural and technological hazards.
- Continue to research ways to improve the County's preparedness and response to any disaster.

Completed/Deleted Actions

Project	Status	Comments
New Straughn High School has built-in shelter for school population	Completed	Project will assist in protection of students in the Straughn schools
Wind retrofit of E-911 building with storm shutters	Completed	Building will be more operational during disasters
Purchase underground shelters to be placed in mobile home communities and for individuals	Deleted	No longer a priority for the County
Has replaced approximately 50 culverts throughout County	Completed	Mitigation of flash flooding along roads in County
Constructed new roof for Straughn Middle School	Completed	Strengthen school infrastructure for wind events
Constructed new roof for Straughn Elementary School	Completed	Replaced roof damaged from Hurricane Ivan
Replaced bridge on Odom Loop (2006)	Completed	Replaced older bridge
Replaced bridge on Zell Ready Rd (2005)	Completed	Replaced older bridge
Replaced bridge on Henderson Bridge Rd (2006)	Completed	Replaced older bridge
Replaced bridge on HDC Road (2006)	Completed	Replaced older bridge
Replaced bridge on Fox Den Road (2006)	Completed	Replaced older bridge
Replaced bridge on Head Farm Rd (2007)	Completed	Replaced older bridge
Replaced bridge on Cravey Bridge Rd (2009)	Completed	Replaced older bridge
Upgraded Holiday Hill Road (2005)	Completed	Improved street conditions
Upgraded Lodge Road (2005)	Completed	Improved street conditions

Covington County Hazard Mitigation Plan

Upgraded Ted Dye Road (2006)	Completed	Improved street conditions
Upgraded Woodall Mill Road (2007)	Completed	Improved street conditions
Upgraded Mac Curry Road (2007)	Completed	Improved street conditions
Upgraded J.E. McDonald Road (2007)	Completed	Improved street conditions
Upgraded Cross Creek Road (2007)	Completed	Improved street conditions
Upgraded Brookwood Road (2007)	Completed	Improved street conditions
Upgraded Hibiscus Road (2006)	Completed	Improved street conditions
Upgraded Laurel Road (2006)	Completed	Improved street conditions
Upgraded Billie Blackmon Road (2008)	Completed	Improved street conditions
Upgraded Barney Stephens Road (2008)	Completed	Improved street conditions
Upgraded Gantt Lake Road (2009)	Completed	Improved street conditions
Upgraded Sims Road (2009)	Completed	Improved street conditions

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Develop a comprehensive outdoor warning siren network through County	Covington County EMA	Grant Funding	All	Ongoing
Continue public awareness throughout the County for hazard events	Covington County EMA	Covington County / Grant Funding	All	Ongoing
Continue to have printed information available to the public on natural hazards and safety	Covington County EMA	Covington County / Grant Funding	All	Ongoing
Continue surveillance and maintenance of Gantt and Point "A" dams	PowerSouth Energy Cooperative	PowerSouth Energy Cooperative	Dam Failure	Ongoing
Continue to replace older bridges to meet AASHTO standards throughout the county	Covington County Road and Bridge	Road Dept. Revenue	Flooding	Ongoing
Continue to replace or upsize culverts as needed throughout the County	Covington County Road and Bridge	Road Dept. Revenue	Flooding	Ongoing
Continue to pave highly erodible and potentially flood prone roads that cross flood plains	Covington County Road and Bridge	Grant Funding / Road Dept. Revenue	Flooding	Ongoing
Continue repairing gulleys near right of way	Covington County Road and Bridge	Grant Funding / Road Dept. Revenue	Flooding	Ongoing
Repair water systems	Cov. Co. Water Authority	General Fund/Grant Funding	All	Ongoing
Continue to correct any sinkholes in the County	Covington County Engineer	Covington County / Grant Funding	Land Subsidence	Ongoing

Covington County Hazard Mitigation Plan

Assess vulnerability of critical facilities and infrastructure within the County	Covington County EMA	General Fund / Grant Funding	All	Ongoing
Work with the Covington County Forestry Office and Conecuh National Forest on wildfire prevention measures	Covington County EMA	Covington County	Wildfires	Ongoing
Update Emergency Operations Plan (in progress)	Covington County EMA	Grant Funding	All	High
Construct or renovate building for EMA Office and Emergency Operations Center with a shelter portion that will meet FEMA-361 requirements and a backup generator	Covington County EMA	Grant Funding / Covington County	All	High
Upgrade E-911 building through adding storm shelter and expansion of size	Covington County E-911	Grant Funding	High Winds (primary) All (secondary)	High
Acquire generator for E-911 building	Covington County E-911	Grant Funding	All	High
Acquire generators for Covington County Volunteer Firefighters Association	Covington County EMA / Covington County Vol. Firefighters Assoc.	Grant Funding	All	High / Medium
Construction of shelter at CEC Headquarters facility	Covington Electric Cooperative	Covington Electric Coop / Grant Funding	High Winds (primary) All (secondary)	High / Medium
Acquire generator for CEC Headquarters facility	Covington Electric Cooperative	Covington Electric Coop / Grant Funding	All	High / Medium
Hardening of distribution lines throughout CEC system in Covington County	Covington Electric Cooperative	Covington Electric Coop / Grant Funding	High Winds (primary) All (secondary)	High / Medium
Upgrade critical facilities throughout the County	Agency over that critical facility	General Fund/Grant Funding	All	High / Medium
Upgrade mapping systems to determine base floodplain elevations to assist with NFIP requirements	Covington County EMA	Local Funding / Grant Funding	Flooding	Medium
Purchase generators for Antioch, Loango, Onycha, and Wing well/tank sites	Cov. Co. Water Authority	Grant Funding	All	High / Medium
Acquire and relocate flood-prone structures and repetitive loss properties	Covington County Administration	Grant Funding	Flooding	Low
Acquire generators for school sites at Straughn, Fleeta, and Pleasant Home	Covington County Schools	Grant Funding	All	High / Medium

CITY OF ANDALUSIA

Prioritized Threat by Jurisdiction

Criteria for Frequency Categorization:

“Very Low”: events that occur less frequently than once in 1,000 years (**1 point**)

“Low”: events that occur once in 100 years to once in 1,000 years (**2 points**)

“Medium”: events that occur once in 10 years to once in 100 years (**3 points**)

“High”: events that occur more frequently than once in 10 years (**4 points**)

Criteria for Severity Categorization:

“Minor”: little or no damage to structures or infrastructure (area-wide) (**1 point**)

“Serious”: less than \$10 million in damage to structures or infrastructure (area-wide) (**2 points**)

“Extensive”: \$10 million to \$100 million in damage to structures or infrastructure (area-wide) (**4 points**)

Hazard Type	Frequency	Severity	Frequency x Severity
High Winds	High	Extensive	16 points
Flood	Medium	Extensive	12 points
Extreme Heat/Drought	Medium	Serious	6 points
Winter Storms (ice)	Low	Serious	4 points
Winter Storms (snow)	Low	Minor	2 points
Freezing Temperatures	Low	Minor	2 points
Wildfire	Low	Minor	2 point

Goals

- Protect lives of citizens from effects of natural and man-made hazards
- Minimize future damage from disasters
- Educate citizens about vulnerabilities to hazards
- Increased communicative abilities during times of emergency
- Keep critical operations/utilities functioning during times of emergency
- Preserve environmental resources

Completed/Deleted Actions

Project	Status	Comments
Adopted 2003 ICC and 2003 NEC Codes	Completed	Standards will help minimize damage during hazard events
Updated Landscaping Ordinance	Completed	Increased vegetation assists in decreasing storm drainage in developed areas
Improve GIS mapping capabilities, including floodplain information and utility systems	Ongoing	More timely information, especially concerning floodplain development and restoring utility services, assists with informed decisions
Promote standards for existing homes to be retrofitted to exceed minimal codes	Ongoing	Helps minimize future residential damage during disasters
Emergency generator weekly tests and upgrades to units	Ongoing	Preventive actions to keep critical operations running during disasters
Enforcement of zoning ordinance	Ongoing	Assists in minimizing property damage due to consistent standards

Covington County Hazard Mitigation Plan

Planning Department participation in training opportunities, including building code and flood management training	Ongoing	Helps planners and inspectors educate citizens regarding their vulnerability to hazards and how to reduce that vulnerability
Added new 7200 sub-station in electrical system	Completed	Brings all sub-stations to compatible voltages so switching of feeders throughout system is allowable for outages during disasters
Maintain and upgrade electrical poles, conductors, and transformers	Ongoing	To prepare electrical distribution system to withstand disaster events
Safety training	Ongoing	Protect health and safety of City and employees, sharing information with others
Leisure Services Department monitoring emergency supplies	Ongoing	Keep supply inventory current
Fire Department installation of decontamination shower	Completed	Will assist responders exposed to hazardous materials
Fire Department added eight (8) Hazmat suits	Completed	Protect responders in emergency situations
Police Department added two (2) Hazmat suits	Completed	Protect responders in emergency situations
Fire Department procured a ladder truck	Completed	Allows for response to elevated structures
Fire Department purchase of new radios	Ongoing	Ensure communications during emergencies
Public awareness on local cable and billboards	Ongoing	Educate citizens of services, safety programs, and preparation for disaster emergencies
Upgrading Utility Board trucks and equipment	Ongoing	Adequate equipment to perform duties during natural disasters
Upgrading Public Works Department trucks and equipment	Ongoing	Adequate equipment to clean up streets after disaster events
Utility Board training education for employees	Ongoing	Help functionality of system and safety
Fire Department hazardous materials training	Ongoing	Receive modern, updated training
Emergency responders supply programs with necessary tools and educational materials	Ongoing	Protect lives of citizens from disasters
Respond to hazard emergencies	Ongoing	Protect lives of citizens from disasters
Use manhole inserts in flood prone areas	Ongoing	Minimize flood damage and improve water quality
Support Alabama Rural Water Association	Ongoing	Maintain quality water system
Support Alabama Water Pollution Control Association	Ongoing	Maintain quality sewer system
Support Conecuh-Sepulga Clean Water Partnership	Ongoing	Protect area water resources
Attend Covington County EMS exercises	Ongoing	Keep updated on latest response trends
Implementation of the drainage, maintenance, and ditch cleaning program	Ongoing	Protect from flooding occurrences
Implementation of street maintenance program	Ongoing	Keep streets in adequate condition
Maintain municipal parks and other open space	Ongoing	Preserve environmental resources
Improve hazard warning tools for communication between citizens and local government	Ongoing	Keep timely communications between the City and citizens regarding the vulnerability to hazards and ways to reduce vulnerabilities

Covington County Hazard Mitigation Plan

Utilization of the Comprehensive Assessment System	Ongoing	Provides for report preparation that documents assets prior to disaster events
Utilization of the Drug Task Force truck as Command Post	Ongoing	Equipment available for emergency situations
Coordination of the Anti-Terrorism Task Force and training	Ongoing	Improve response to disaster events
Utility Board constructed warehouse facility near headquarters	Completed	Electric, water, and sewer supplies are inventoried in one location
Replaced 9,300 feet of water mains and 3,000 feet of sewer pipe in Snowden Dr, Packer Ave, and Church St areas	Completed	Reduce lead exposure to citizens and replace leaking clay sewer pipe
Replaced 3,500 feet of sewer pipe along Meadowbrook Drive	Completed	Replaced leaking clay pipe
Replaced water and sewer lines along East Three Notch between Stanley and Bypass	Completed	Replaced lead joints and leaking clay pipe
Replaced water main from City Square to Stanley along East Three Notch	Completed	Replaced lead joints
Installation of water meters with double check valves and automated meter reading	Completed	Increased monitoring of water system and decrease contamination risk
Andalusia City Schools modernized phone system	Completed	More efficient communications during emergencies

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Work to retrofit the city's critical facilities and infrastructure, if funding sources become available	Planning & Development	Grant Funding	All	High
Upgrade sewer outfall throughout the system as needed	Utility Board	Grant Funding	Flooding	High
Implement Water and Wastewater Guideline Standards and Specifications	Utility Board	Utilities Board	All	High
Installation of cameras in schools for security and safety purposes	Andalusia City Schools	Grant Funding	All	High
Installation of generators for Andalusia Elementary, Middle, and High schools for operating freezers during power outages	Andalusia City Schools	Grant Funding	All	High
Provide drainage improvements at all three school facilities	Andalusia City Schools	Grant Funding / Local Funding	Flooding	High
Continue working with PowerSouth Electric Cooperative to reduce lightning damage at school facilities	Andalusia City Schools	Local Funding	Lightning	High
Promote a "Building Safety Week"	Planning & Development	City of Andalusia	High Winds	Medium
Develop emergency equipment storage at Coleman Center	Leisure Services	City of Andalusia	All	Medium
Secure preparation equipment	Leisure Services	City of Andalusia	All	Medium
Add emergency auxiliary electricity to staging areas	Leisure Services	City of Andalusia	All	Medium
Purchase Radio Repeater System	Fire Department	City of Andalusia / Grant	All	Medium

Covington County Hazard Mitigation Plan

		Funding		
Update Safety Program to Current Policies and Procedures	Administration Department	City of Andalusia	All	Medium
Installation of fiber optic cable to city facilities	Utility Board	Utilities Board	All	Medium
Seek funding for proposed City drainage projects and studies	Public Works	Grant Funding	Flooding	Medium
Portable Generators at major intersections; E. Three Notch and Bypass; River Falls St and Bypass; Stanley St and E Three Notch; S. Three Notch and Bypass	Utility Board	Grant Funding	All	Medium
Relocate existing 3 phase overhead power underground at critical care facilities; Andalusia Regional Hospital and Andalusia Health Care	Utility Board	Utility Board / Grant Funding	All	Medium
Portable generator for Industrial Park lift stations – Airport and Client Logic	Utility Board	Grant Funding	All	Medium
Dedicated generator for lift stations – Lakeland Dr., Sanford Rd., Co Rd 56, Meadowbrook Dr., Maple St., E Pass Rd., Straughn School Rd., Moore Rd.	Utility Board	Grant Funding	All	Medium
Wind retrofit of Andalusia Head Start Building and Bright Beginnings Preschool Building for use as an emergency shelter.	City of Andalusia	Grant Funding	High Winds	Medium
Dedicated generators for the following portable water well sites: Well #4-Debro Hill, Well #5 Debro Hill, Well #7 Waites Drive, Well #9 Piney Wood Road, Well # 10 County Road 43, Well # 11 Rose Hill. Well # 7 and Well # 9 are the priority locations for generators.	Utility Board	Grant Funding	All	Medium
Storm Drainage Improvements on north side of Andalusia Bypass between Coleman Avenue and Berry Avenue, to a flood prone area, beginning south of East Pass Road and ending at Lark Street, from East Watson Street, behind First Baptist Church, to South Cotton and Knox Streets, to an eroding drainage ditch between Hilda Street and Manhattan Drive.	Utility Board	Grant Funding	Flooding	Medium

Covington County Hazard Mitigation Plan

TOWN OF BABBIE

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Drought/Extreme Heat

Goals

- Protect life and property of citizens
- Protect facilities from effects of hazards
- Safety of citizen resources

Completed/Deleted Actions

Project	Status	Comments
Replace older bridges to meet AASHTO and ALDOT standards	Deleted	No longer town priority
Replace or upsize culverts as needed in the Town of Babbie	Deleted	No longer town priority
Repair gulleys near right of way in Babbie	Deleted	No longer town priority

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Install generator at Babbie Fire Department	Babbie VFD / Town of Babbie	Grant Funding	All	High
Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Town of Babbie / Covington County EMA	Town of Babbie	Flooding	High
Improve any existing or future drainage problems in Babbie	Town of Babbie / Covington County Road and Bridge	Town of Babbie / Covington County	Flooding	High / Medium
Improve unpaved streets that are washing out during rainfall events	Covington County Road and Bridge / Town of Babbie	Grant Funding / Town of Babbie	Flooding	Medium / Low
Upgrade any critical facilities in Babbie	Town of Babbie / Babbie VFD	Grant Funding	All	Medium / Low
Repair water systems if needed in Babbie	Cov. Co. Water Authority	Covington County Water Authority	All	Medium / Low
Install additional outside warning siren	Town of Babbie / Covington County EMA	Grant Funding	All	Low

Covington County Hazard Mitigation Plan

TOWN OF CAROLINA

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Wildfire

Goals

- Protect life and property of citizens
- Protect facilities from effects of hazards
- Safety of citizen resources

Completed/Deleted Actions

Project	Status	Comments
Replace older bridges to meet AASHTO and ALDOT standards	Deleted	No longer town priority
Replace or upsize culverts as needed in the Town of Carolina	Deleted	No longer town priority
Repair gulleys near right of way in Carolina	Deleted	No longer town priority

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Monitor potential drainage problem along Firehouse Road	Town of Carolina / Covington County Road and Bridge	Town of Carolina / Covington County	Flooding	Ongoing
Consult with Covington County Forester	Town of Carolina	Town of Carolina	Wildfire	Ongoing
Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Town of Carolina / Covington County EMA	Town of Carolina	Flooding	High
Install generator at Carolina Fire Department	Carolina VFD	Grant Funding	All	Medium
Improve unpaved streets that are washing out during rainfall events	Covington County Road and Bridge / Town of Babbie	Grant Funding / Town of Babbie	Flooding	Medium / Low
Upgrade water distribution system	Cov. Co. Water Authority	Covington County Water Authority	All	Medium / Low
Install additional outside warning siren	Town of Babbie / Covington County EMA	Grant Funding	All	Low
Upgrade fire station in Carolina	Carolina VFD	Grant Funding	High Winds	Low

Covington County Hazard Mitigation Plan

CITY OF FLORALA

Prioritized Threat by Jurisdiction

1. Flooding
2. High Winds
3. Lightning
4. Extreme Heat/Drought

Goals

- Provide adequate services for protecting citizens during hazards
- Prevention of flooding problems within the City

Objectives

- Provide adequate shelter for evacuation and accommodate population demands
- Prevent flooding and damage to roads due to improper infrastructure
- Provide adequate sewage disposal during power outage to avoid public hazards
- Improve road surface to lessen flood damage and provide for evacuation, emergency response, and property protection
- Improve watershed for the protection of property and public safety
- Prevention of overflow to current system due to floods and avoid public contamination

Completed/Deleted Actions

Project	Status	Comments
Improved sewer outfall line in western Florala	Completed	Reduces amount of inflow and infiltration into WWTP
Application approved to improve sections of West 5 th Ave and Juniper Street	In Progress	This project to be completed by the end of 2009 will improve access to a large residential area, improve drainage conditions, and improve an unpaved street
Evaluate sewage collection system	Ongoing	Prevent inflow and infiltration caused by intense precipitation events
Improve dirt roads, ditches, and check flumes	Ongoing	Preventing flooding and maintaining accessible streets
Continue to work with County on NFIP requirements	Ongoing	Reduce flooding impacts on City

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Install generators for Florala Middle School and Florala High School cafeteria facilities	Covington County Schools	Grant Funding / Cov Co Schools	All	High
Install generators for all nine (9) sewer lift stations and two (2) water wells	Florala Utilities	Florala Utilities / Grant Funding	All	High / Medium
Install generators for two (2) State Park lift stations	State of Alabama	State of Alabama	All	High / Medium
Elevate three (3) lift stations (Central Y, Lake Jackson, Gilmer)	Florala Utilities	Florala Utilities / Grant Funding	Flooding	High / Medium
Storm drainage improvements at the 5 th Ave / 4 th St intersection	City of Florala / Florala Utilities	City of Florala / Florala Utilities /	Flooding	High / Medium

Covington County Hazard Mitigation Plan

		Grant Funding		
Storm drainage improvements at the 7 th St / 4 th St intersection	City of Florala / Florala Utilities	City of Florala / Florala Utilities / Grant Funding	Flooding	High / Medium
Storm drainage improvements at the 6 th Ave / 5 th Ave intersection	City of Florala / Florala Utilities	City of Florala / Florala Utilities / Grant Funding	Flooding	High / Medium
Storm drainage improvements on 5 th Avenue, including reconstructing drainage ditch from 8 th St to 10 th St	City of Florala / Florala Utilities	City of Florala / Florala Utilities / Grant Funding	Flooding	High / Medium
Improve storm drainage facilities and repair underground erosion	City of Florala / Florala Utilities	City of Florala / Grant Funding	Flooding	Medium
Renovate / upgrade existing emergency shelter	City of Florala	Grant Funding / City of Florala	High Winds / Flooding	Medium

Covington County Hazard Mitigation Plan

TOWN OF GANTT

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Dam Failure

Goals

- Protect life and property of citizens
- Protect facilities from effects of hazards
- Safety of citizen resources

Completed/Deleted Actions

Project	Status	Comments
Replace older bridges to meet AASHTO and Alabama Dept. of Transportation standards	Deleted	No longer town priority
Work with PowerSouth Energy Cooperative regarding Gantt Dam safety measures	Ongoing	Gantt Lake affects many residents and visitors

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Replace or upsize culverts as needed in Gantt	Covington County Road and Bridge	Covington County	Flooding	High
Repair gulleys along rights of way	Town of Gantt / Covington County Road and Bridge	Grant Funding	Flooding	High
Improve drainage problems between Hwy 29 and Commerce	Town of Gantt / Covington County Road and Bridge	Grant Funding	Flooding	High
Generator for Town Hall / Police Station	Town of Gantt	Grant Funding	All	High / Medium
Improve water systems in Gantt, especially in Rawls S/D	Town of Gantt	Grant Funding / Town of Gantt	All	High / Medium
Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Town of Gantt / Covington County EMA	Town of Gantt	Flooding	High / Medium
Wind retrofit at Town Hall for first responders	Town of Gantt	Grant Funding	High Winds	Medium

Covington County Hazard Mitigation Plan

TOWN OF HEATH

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Drought/Extreme Heat

Goals

- Protect life and property of citizens
- Protect facilities from effects of hazards
- Safety of citizen resources

Completed/Deleted Actions

Project	Status	Comments
Replace older bridges to meet AASHTO and ALDOT standards	Deleted	No longer town priority
Replace or upsize culverts	Ongoing	Prevent flooding issues and improve storm water conveyance

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Improve drainage problem at corner of Straughn School Road / CR 70	Covington County Road and Bridge	Covington County	Flooding	Medium
Generator for Town Hall / Fire Station	Town of Heath / Heath VFD	Grant Funding	All	Medium
Add fire hydrants and increase water main diameter	Town of Heath	Grant Funding / Town of Heath	All	Medium
Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Town of Heath / Covington County EMA	Town of Heath	Flooding	Medium
Radio base station for Fire Dept	Heath VFD	Grant Funding / Heath VFD	All	Medium / Low

Covington County Hazard Mitigation Plan

TOWN OF HORN HILL

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Drought/Extreme Heat

Goals

- Protect life and property of citizens, especially elderly citizens
- Protect facilities from effects of hazards
- Safety of citizen resources

Completed/Deleted Actions

Project	Status	Comments
Monitor bridge over Indian Creek	Ongoing	Only area in Horn Hill that has flooding concerns
Monitor ditch culverts in town	Ongoing	Ensure drainage conveyance
Repair gulleys near rights of way	Deleted	No problems at this time

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Generator for Community Center	Town of Horn Hill	Grant Funding	All (Priority – High Winds)	High
Deep well pump at Community Center	Town of Horn Hill	Grant Funding / Town of Horn Hill	All	Medium
Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Town of Horn Hill / Covington County EMA	Town of Horn Hill	Flooding	Medium

Covington County Hazard Mitigation Plan

TOWN OF LIBERTYVILLE

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Drought/Extreme Heat

Goal

- Minimize property damage
- Protect the safety of citizens

Completed/Deleted Actions

Project	Status	Comments

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Generator for Town Hall / Fire Department	Town of Libertyville / Libertyville VFD	Grant Funding	All	Medium
Construction of elevated water tank	Town of Horn Hill / Covington County Water Authority	Grant Funding / Covington County Water Authority	All	Medium
Improve drainage ditch along AL Hwy 55	Covington County Road and Bridge	Covington County Road and Bridge	Flooding	Medium
Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Town of Libertyville / Covington County EMA	Town of Libertyville	Flooding	Medium

Covington County Hazard Mitigation Plan

TOWN OF LOCKHART

Prioritized Threat by Jurisdiction

1. Flooding (esp. Flash Flooding)
2. High Winds
3. Drought/Extreme Heat

Goals

- Protect life and property of citizens
- Protect facilities from effects of hazards
- Safety of citizen resources

Completed/Deleted Actions

Project	Status	Comments
Replace older bridges to meet AASHTO and ALDOT standards	Deleted	No problems at this time
Repair gulleys near rights of way	Deleted	Implementation of other drainage projects are priority

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Repair sewer outfall line along Osage Street	Town of Lockhart	Grant Funding / Town of Lockhart	All	High
A generator for the main water well.	Town of Lockhart	Grant Funding / Town of Lockhart	All	High / Medium
A generator for the Lockhart / Florala Wastewater Treatment Plant	Town of Lockhart / Florala Utilities	Grant Funding / Town of Lockhart / Florala Utilities	All	High / Medium
Acquire generators for W.S. Harlan Elementary School site	Covington County Schools	Grant Funding	All	High / Medium
Culvert replacement on Chickasaw Ave	Town of Lockhart	Grant Funding / Town of Lockhart	Flooding	High / Medium
Fill and riprap drainage ditch by old railroad near Chippeway Street	Town of Lockhart	Grant Funding / Town of Lockhart	Flooding	High / Medium
Fix eroded ditches along Mohawk St. from north side of Rappahannock Ave	Town of Lockhart	Grant Funding / Town of Lockhart	Flooding	High / Medium
Fix eroded ditches and damaged pavement along Rappahannock Ave and Osage Ave	Town of Lockhart	Grant Funding / Town of Lockhart	Flooding	High / Medium
Repair eroded access road to Lockhart / Florala Wastewater Treatment Plant.	Town of Lockhart	Grant Funding / Town of Lockhart	All	Medium
Develop new water well	Town of Lockhart	General Fund/Grant Funding	All	Medium
Adopt floodplain management regulations to meet NFIP requirements for reducing flood hazards	Town of Lockhart / Covington County EMA	Town of Lockhart	Flooding	Medium

Covington County Hazard Mitigation Plan

TOWN OF ONYCHA

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Drought/Extreme Heat

Goals

- Protect life and property of citizens
- Protect facilities from effects of hazards
- Safety of citizen resources

Completed/Deleted Actions

Project	Status	Status
Replace older bridges to meet AASHTO and ALDOT standards	Deleted	No bridge problems at this time
Keep drainage ditches clear of obstacles	Ongoing	Prevent drainage problems
Replace culverts	Ongoing	Efficient conveyance of storm drainage

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Generator for well/tank	Cov. Co Water Authority	Grant Funding	All	High
New pumper truck	Onycha VFD	Grant Funding / Onycha VFD	All	High / Medium

Covington County Hazard Mitigation Plan

CITY OF OPP

Prioritized Threat by Jurisdiction

1. High Winds
2. Flooding
3. Drought/Extreme Heat

Goals

- Safety for citizens
- Prevention of property damage
- Keep critical operations/utilities functioning during times of emergency

Completed/Deleted Actions

Project	Status	Comments
Implementation of NFIP Ordinance	Ongoing	Regulation of construction in floodplain
Drainage maintenance throughout City	Ongoing	Flood prevention measures
Tree management	Ongoing	Prevent line damage
Received 250 KW portable generator	Completed	Use for primary water wells
Received 100 KW portable generator	Completed	Use for sewer pumps
Renovated sanitary sewer main located in and adjacent to a tributary of Indian Creek, beginning south of Williams Street and ending at Barnes St	Completed	Sewer lines up to standard

Action Plan

Activity	Agency	Funding Source	Hazards Addressed	Priority
Repair or replace existing sanitary sewer lines east of Woodham Circle, located in and adjacent to a tributary of Indian Creek.	Opp Utilities	Grant Funding / Opp Utilities	All	High
Repair or replace existing sanitary sewer mains located in and adjacent to a tributary of Cameron Creek, beginning at west of Mullins Ave. and ending Barnes St.	Opp Utilities	General/Grant Funding	All	High
Emergency Services Shelter Areas	Planning Department	Grant Funding	All (esp. High Winds)	Medium
Safe room promotion	Planning Department	General Fund	High Winds	Medium
Repair and replace section of existing sanitary sewer main that crosses under Highway 331 in the vicinity of Cooperative Propane	Opp Utilities	General/Grant Funding	All	Medium
Storm Drainage Improvements to Duval Drive and Maloy Street.	City of Opp	General/Grant Funding	Flooding	Medium
Repair or replace existing sanitary sewer mains at tributary of Cameron Creek, beginning at 6 th Ave and	Opp Utilities	General/Grant Funding	All	Medium

Covington County Hazard Mitigation Plan

ending north of Opine Road.				
Provide dedicated generators for the following pump station locations: North Effluent, South Influent, Capitol Heights, City Yard, Westside Treatment Plant and Pittman Lift	Opp Utilities	Grant Funding / Opp Utilities	All	Medium / Low
Provide four portable generators that can be used at these following lift stations; Grover Street, Country Club, State Park, Holley Forrest, Cool Springs Road, Nix Station, Davis Lane, Wyatt Subdivision, Terry Drive, Samuel Ave, Henley Street, Grover Street, Fairway Drive (3-Phase), Fairway Drive (single phase) and 16 th Street	Opp Utilities	Grant Funding / Opp Utilities	All	Medium / Low

Covington County Hazard Mitigation Plan

TOWN OF RED LEVEL

Prioritized Threat by Jurisdiction

1. High Winds
2. Drought/Extreme Heat
3. Flood

Goals

- A. Minimize property damage and increase safety of citizens
- B. Improve ongoing storm drainage, erosion control, paving, and curbing projects on municipal streets and properties
- C. Continue implementing Emergency Response Plan
- D. Continue Cross Connection Water Agreement Policy
- E. Continue leak detection, metering program, and monitor water supply

Completed/Ongoing Actions

Project	Status	Comments
Removal of trees that affect utility service	Ongoing	Has removed several trees that potentially affect utility lines
Work with County regarding NFIP program	Ongoing	Town will work with County EMA to review regulations
Constructed community shelter	Completed	Completed in 2009 for a place to stage first responders and house vulnerable populations
Replaced roof at First Step Building	Completed	Ensure sustainability of building

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Work to retrofit critical facilities as funds are available	Town of Red Level	General Fund / Water Funds	All	High
Standby Generator for Water Well	Town of Red Level	Grant Funding	All	High
Construct new water well	Town of Red Level	Grant Funding	All	High
Rehabilitate water tank	Town Administration	Water Funds	All	High
Acquire generators for Red Level school sites	Covington County Schools	Grant Funding	All	High
Replace undersized storm drainage culverts along and under North Street from East Street to north of Sellers Street.	Town of Red Level	Grant Funding	Flooding	Medium
Riprap existing drainage ditch which runs parallel to North Street from south of East Street to north of Sellers Street	Town of Red Level	Grant Funding	Flooding	Medium
Replace culvert and repair eroded areas below Main Street	Town of Red Level	Grant Funding	Flooding	Medium

Covington County Hazard Mitigation Plan

TOWN OF RIVER FALLS

Prioritized Threat by Jurisdiction

1. Flooding/Dam Failure
2. High Winds

Goals

- A. Protect life and property of citizens of the Town of River Falls
- B. Minimize future flood damage
- C. Keep the Town's critical infrastructure operating during disasters
- D. Provide a safe haven for citizens and travelers during disasters
- E. Enforce Town ordinances to mitigate future disasters

Completed/Ongoing Actions

Project	Status	Comments
Acquired new police car	Completed	More effective patrol and security of critical facilities
Managing floodplain development through NFIP regulations	Ongoing	Minimize future flood damage
Enforcement of zoning ordinance	Ongoing	Minimize property damage and loss during natural disasters
Education to residents of floodplain requirements and flood-proofing information	Ongoing	Methods to reduce potential flood damage
Repair water system	Ongoing	Keep potable water safe for citizen use
Maintain bridges and culverts in Town	Ongoing	With assistance from Covington County to ensure safe travel and evacuation and prevent unnecessary flooding
Patch streets when needed	Ongoing	Assist with transportation mobility for citizens

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Work to retrofit the town's critical facilities if funding sources become available	Town of River Falls	Town of River Falls / Grant Funding	All	High
Provide in existing and/or new facilities food, water, and bedding for local and other displaced persons during a disaster	Town of River Falls	Town of River Falls / Grant Funding	All (esp. High Winds and Flooding)	High
Have two portable generators to provide secondary source of power for critical facilities	Town of River Falls / River Falls VFD	Grant Funding	All	High
Work with PowerSouth Electric on dam mitigation measures	Town of River Falls / PowerSouth Electric Coop.	Town of River Falls	Dam Failure	High
Implement GIS mapping system for utility and floodplain development purposes	Town of River Falls	Grant Funding / Town of River Falls	All (esp. Flooding)	Medium
Establish shelter with generator in River Falls for those stranded traveling the hurricane evacuation route and those caught in a flood	Town of River Falls	Grant Funding	High Winds / Flooding	Medium

Covington County Hazard Mitigation Plan

Adopt Building Codes to regulate integrity of structures	Town of River Falls	Town of River Falls	All (esp. High Winds)	Medium
Promote standards for existing homes to be retrofitted so they exceed minimal codes	Town of River Falls	Town of River Falls	All (esp. High Winds)	Medium
Pave highly erodible and potentially flood prone roads that cross flood plains throughout River Falls	Town of River Falls / Covington County Road and Bridge	Grant Funding / Local Funds	All (esp. Flooding)	Medium
Repair gulleys near right of way	Covington County Road and Bridge	Grant Funding / Local Fund	All (esp. Flooding)	Medium

Covington County Hazard Mitigation Plan

TOWN OF SANFORD

Prioritized Threat by Jurisdiction

1. High Winds
2. Flood
3. Drought/Extreme Heat

Goals

- A. Protect life and property of citizens
- B. Protect facilities from effects of hazards
- C. Safety of citizen resources

Completed/Ongoing Actions

Project	Status	Comments
Improving Snuffy Road	Completed	Reduce washing during rain events
Improving unpaved roads	Ongoing	Reduce washing during rain events
Replace older bridges to meet AASHTO and ALDOT standards	Deleted	No bridge issues currently

Action Plan

Project	Agency	Funding Source	Hazards Addressed	Priority
Maintain drainage facilities	Covington County Road and Bridge	Local Funds	Flooding	High
Repair gulleys near right of way	Covington County Road and Bridge	Local Funds / Grant Funding	Flooding	High
Generators for critical facilities	Town of Sanford / Sanford VFD	Grant Funding	All (esp. High Winds)	High
Maintain water system	Cov. Co. Water Authority	General Fund/Grant Funding	All	High

Section 6 - Plan Maintenance Process

This section of the plan addressed requirements of Interim Final Rule (IFR) Section 201.6(c)(4).

Section Contents

- 6.1 Hazard Mitigation Monitoring, Evaluation, and Update Process
- 6.2 Hazard Mitigation Plan Incorporation
- 6.3 Continued Public Involvement

Section	Section Updates
6.x	<ul style="list-style-type: none">• Changes in numbering and organization
6.1	<ul style="list-style-type: none">• Incorporated former “Section VIII-A”• Added school system superintendents to Planning Committee• Changed update meeting timeline
6.2	<ul style="list-style-type: none">• Incorporated former “Section VIII-B”• Changed format of plans for incorporation
6.3	<ul style="list-style-type: none">• Incorporated former “Section VIII-C”• Edited language to meet Section 6.1 update timelines

6.1 Hazard Mitigation Plan Monitoring, Evaluation, and Update Process

The planning cycle for the Covington County Hazard Mitigation Plan is five years. This planning cycle is consistent with FEMA requirements. The Covington County EMA Director will facilitate a planning evaluation meeting with members of the Covington County Hazard Mitigation Planning Committee as needed, especially during periods following a disaster event. The Covington County EMA will be responsible for contacting committee members and organizing the evaluation meeting. The meeting will be advertised in advance by newspaper, postings, and other media. The Committee, at a minimum, will consist of the following:

- Covington County EMA Director
- Covington County Engineer
- Covington County Sheriff or representative
- Andalusia Mayor or representative
- Babbie Mayor or representative
- Carolina Mayor or representative
- Florala Mayor or representative
- Gantt Mayor or representative
- Heath Mayor or representative
- Horn Hill Mayor or representative
- Libertyville Mayor or representative
- Lockhart Mayor or representative
- Onycha Mayor or representative
- Opp Mayor or representative
- Red Level Mayor or representative
- River Falls Mayor or representative
- Sanford Mayor or representative
- Andalusia City Schools Superintendent or representative
- Covington County Schools Superintendent or representative
- Opp City Schools Superintendent or representative
- Andalusia Fire Chief
- Opp Fire Chief
- Florala Fire Chief
- President of County Volunteer Firefighters Association
- Covington County Red Cross Director

The Committee will utilize these meetings to evaluate the Hazard Mitigation Plan and how disasters affected the jurisdictions during that period. Prior to the annual meeting, the committee members shall review their mitigation sections for any changes needed. After the meeting, the jurisdictions will adopt the changes made to the Hazard Mitigation Plan.

The Covington County EMA Director will regularly stay in contact with each jurisdiction in order to address preparation and education issues regarding hazard events within the county and the municipalities.

Covington County Hazard Mitigation Plan

The Planning Committee, led by the Covington County EMA Director, will also be responsible for updating the Hazard Mitigation Plan before the five-year planning cycle expires. The Planning Committee will be responsible for developing a funding source, procurement of services, and preparation of the scope of work for future plan updates.

6.2 Hazard Mitigation Plan Incorporation

The Hazard Mitigation Planning Committee, which has representation from each jurisdiction, will incorporate appropriate elements of the Hazard Mitigation Plan as local plans are developed or updated.

The Hazard Mitigation Plan was incorporated as an Annex to the Covington County Emergency Operations Plan and will continue to be implemented into the EOP, as it is being updated in 2009. The EOP update involved meetings with local stakeholders and will be adopted by the Covington County Commission. The EMA Director will refer to the Hazard Mitigation Plan in discussions with local government officials regarding mitigation preparation.

The City of Andalusia has not updated their Comprehensive Plan during the planning period, but will look to update it during the next planning period and will incorporate elements of the risk assessment and mitigation strategies. This process will include several public meetings through both the Andalusia Planning Commission and the City Council and will be re-adopted upon completion of the update.

The City of Opp is planning to update their Comprehensive Plan in the next few years and plans to utilize data and strategies from the Hazard Mitigation Plan in their new Comprehensive Plan. Their process will follow a similar process through being facilitated by the Opp Planning Commission with multiple public meetings, and future adoption by the Opp City Council.

The City of Florala is undergoing a strategic planning process and is utilizing concepts discussed in the Hazard Mitigation Plan in the facilitation of their goal setting. They are currently having meetings with local stakeholders and the public and are goal setting with hazard mitigation a primary objective.

6.3 Continued Public Involvement

Any future Hazard Mitigation Planning Committee meeting will be advertised to the public by local media and postings.

Copies of the updated Hazard Mitigation Plan will be available at each municipal office, the Covington County Commission, and the Covington County Emergency Management Agency office.